



United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE
2002/2003

Volume Vs: REGIONAL REPORT:

MWANZA REGION



Cattle



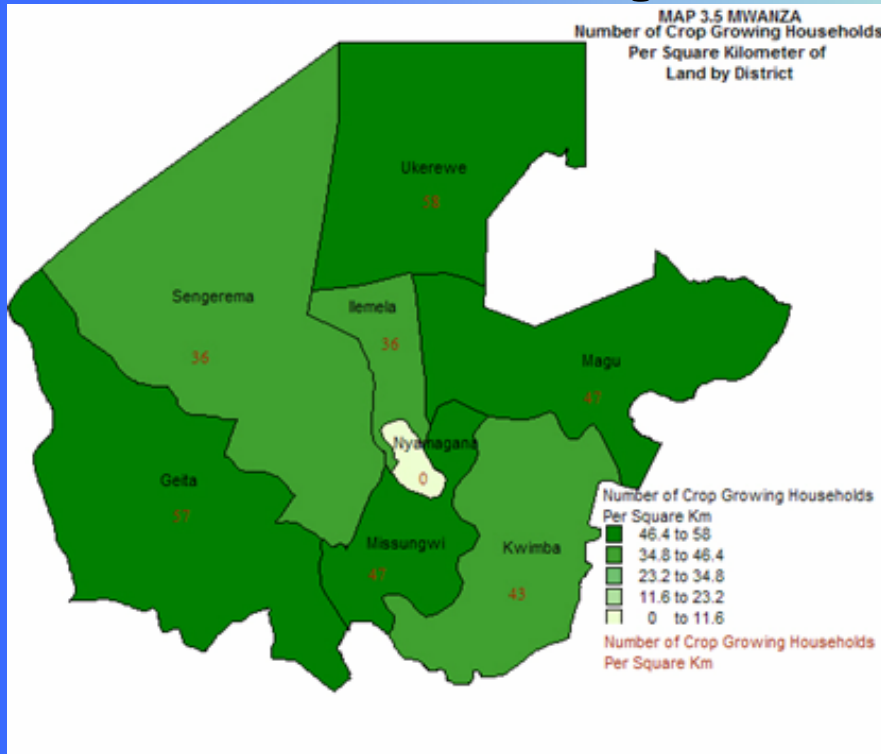
Fishing



Eggs



Maize



Oranges



Hand Cultivation



Indigenous Chicken



Irrigation



Paddy



Cassava



Goats



United Republic of Tanzania



**NATIONAL SAMPLE CENSUS
OF AGRICULTURE
2002/2003**

VOLUME Vs: REGIONAL REPORT: MWANZA REGION

*National Bureau of Statistics, Ministry of agriculture and Food Security,
Ministry of Water and Livestock Development, Ministry of Cooperatives and Marketing,
Presidents Office, Regional Administration and Local Government,
Ministry of Finance and Economic Affairs – Zanzibar*

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ACRONYMS

<i>ASDP</i>	<i>Agricultural Sector Development Project</i>
<i>CSPro</i>	<i>Census and Survey Processing Program</i>
<i>DFID</i>	<i>Department for International Development</i>
<i>DIAS</i>	<i>District Integrated Agricultural Survey</i>
<i>DS</i>	<i>District Supervisor</i>
<i>EAS</i>	<i>Expanded Agricultural Survey</i>
<i>EAs</i>	<i>Enumeration Areas</i>
<i>EU</i>	<i>European Union</i>
<i>FE</i>	<i>Field Enumerator</i>
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>Ha</i>	<i>Hectares</i>
<i>IAS</i>	<i>Integrated Agricultural Survey</i>
<i>ICR</i>	<i>Intelligent Character Recognition</i>
<i>IEC</i>	<i>Information, Education and Communication</i>
<i>JICA</i>	<i>Japanese International Cooperation Agency</i>
<i>LRS</i>	<i>Long Rainy Season,</i>
<i>MAFS</i>	<i>Ministry of Agriculture and Food Security</i>
<i>MCM</i>	<i>Ministry of Co-operatives and Marketing</i>
<i>MWLD</i>	<i>Ministry of Water and Livestock Development</i>
<i>NBS</i>	<i>National Bureau of Statistics</i>
<i>NGO</i>	<i>Non Governmental Organization</i>
<i>NMS</i>	<i>National Master Sample</i>
<i>NSCA</i>	<i>National Sample Census of Agriculture</i>
<i>NSGRP</i>	<i>National Strategy for Growth and Reduction of Poverty</i>
<i>PORALG</i>	<i>President's Office, Regional Administration and Local Government</i>
<i>PPS</i>	<i>Probability Proportional to Size</i>
<i>PSU</i>	<i>Primary Sampling Unit</i>
<i>RAAS</i>	<i>Rapid Appraisal Agricultural Survey</i>
<i>RS</i>	<i>Regional Supervisor</i>
<i>RSM</i>	<i>Regional Statistical Manager</i>
<i>SAC</i>	<i>Scotts Agriculture Consultancy Ltd</i>
<i>SPSS</i>	<i>Statistical Package for Social Science</i>
<i>SRS</i>	<i>Short Rainy Season</i>
<i>TOT</i>	<i>Training of Trainers</i>
<i>ULG</i>	<i>Ultek Laurence Gould</i>
<i>UNDP</i>	<i>United Nations Development Programme</i>
<i>UNFAO</i>	<i>United Nations Food and Agriculture Organization</i>
<i>VPO</i>	<i>Vice President Office</i>

PREFACE

At the end of the 2002/03 Agriculture Year, the National Bureau of Statistics and the Office of the Chief Government Statistician in Zanzibar in collaboration with the Ministries of Agriculture and Food Security; Water and Livestock Development; Cooperatives and Marketing as well as the Presidents Office, Regional Administration and Local Government (PORALG) conducted the Agriculture Sample Census. This is the third Agriculture Census to be carried out in Tanzania, the first one was conducted in 1971/72, the second in 1993/94 and 1994/95 (during 1993/94 data on household characteristics and livestock count were collected and data on crop area and production in 1994/95).

It is considered that this census is one of the largest to be carried out in Africa and indeed in many other countries of the world. The census collected detailed data on crop production, crop marketing, crop storage, livestock production, fish farming, tree farming, access to infrastructures and services and poverty indicators.

In addition to this, the census was large in its coverage as it provides data that can be disaggregated at district level and thus allow comparisons with the 1998/99 District Integrated Agricultural Survey. The census covered smallholders in rural areas only and large scale farms. This report presents Mwanza region data disaggregated to district level. It was very difficult to discuss all variables collected in a single report hence the analysis was based on the most important smallholder variables. The rest of the variables are found in the e attached annex of table of results. The analysis in the report includes time series comparisons using data from the previous censuses and surveys.

The extensive nature of the census in relation to its scope and coverage is a result of the increasing demand for more detailed information to assist in the proper planning of this sector and in the administrative decentralization of planning to district level. It is hoped that this report will provide new insights for planners, policy makers, researchers and others involved in the agricultural sector in order to improve the prevailing conditions faced by crop producers and livestock keepers in the country.

On behalf of the Government of Tanzania, I wish to express my appreciation for the financial support provided by the development partners, in particular, the European Union as well as DFID, UNDP, Japanese Government, JICA and others who contributed through the pool fund mechanism.

Finally, my appreciation goes to all those who in one-way or the other contributed to the success of the survey. In particular, I would also like to mention the enormous effort made by the Planning Group composed of professionals from the Agriculture Statistics Department of the National Bureau of Statistics (NBS), the Office of the Chief Government Statistician in Zanzibar (OCGS) and the Statistics Unit of the Ministry of Agriculture and Food Security (MAFS) with technical assistance provided by Ultec Lawrence Gould (ULG), Scotts Agriculture Consultancy Ltd and the Food and Agriculture Organisation of the United Nations (FAO).

Additionally, I would like to extend my appreciation to all professional staff of the National Bureau of Statistics, the sector Ministries of Agriculture and PORALG, the Consultants as well as Regional and District Supervisors and field enumerators for their commendable work. Certainly without their dedication, the census would not have been such a success.

Albina A. Chuwa
The Director General
National Bureau of Statistics

EXECUTIVE SUMMARY

The executive summary highlights the main survey results obtained during the National Sample Census of Agriculture 2002/03. This report covers small-scale agriculture households in rural areas of Mwanza region who were selected using statistical sampling techniques. The results presented in this report do not cover urban areas and large-scale farmers.

Highlighted are important findings regarding agricultural production, productivity, husbandry, access to resources, levels of involvement in agricultural and related activities and poverty in Mwanza region, the aim being to present an overview, at regional level, of the rural agricultural households and their levels of involvement in agricultural activities.

i) Household Characteristics

The number of agricultural households in Mwanza region was 340,085 out of which 197,780 (58.2%) were involved in growing crops only, 1,156 (0.3%) rearing livestock only, there were no pastoralist in Mwanza region and 141,149 (41.5%) were involved in crop production as well as livestock keeping. In summary, Mwanza region had 338,929 households involved in crop production and 142,305 involved in livestock production.

Most of the agricultural households ranked annual crop farming as an activity that provides most of their cash income followed by off farm income, permanent crop farming, tree/forest resources, livestock keeping/herding, fishing and remittances.

The region has a literacy rate of 64 percent. The highest literacy rate is in Ukerewe district (73%), followed by Magu district (71%), Sengerema district (65.2%), Missungwi district (65%) and Ilemela district (64%). Kwimba and Geita districts both have literacy rates of 60.3 and 59.0 percents. The literacy rate for the heads of households in the region was 65 percent.

The number of heads of agricultural households with formal education in Mwanza region was 213,880 (62.9) percent, those without formal education were 126,204 (37.1) percent and those with only adult education were 5144 (1.5) percent. The majority of heads of agricultural households (59.1) percent had primary level education whereas only 0.3 percent had post primary education.

In Mwanza region 157,655 household members (68% of households with off-farm income) had each household member engaged in off-farm income generating activities. Another 50,366 households (22%) had two household members engaged in off farm income generating activities and 24,841 households (11%) had each more than two members engaged in off-farm income generating activities.

ii) Crop Production

▪ Land Area

The total area of land available to smallholders was 864,585 ha. The regional average land area utilised for crop production per crop growing household was only 2.0 ha. This figure is equivalent to the national average of 2.0 hectares.

- **Planted Area**

The area planted with annual crops and vegetables was 679,107 hectares out of which 438,178 hectares (64.5%) were planted during short rainy season and 240,929 hectares (35.5%) during long rainy season.

An estimated area of 315,648 ha (46.5% of the total planted area with annual and vegetable crops) was planted with cereals, followed by 176,633 hectares (26.0%) of root and vegetables, 86,938 ha (12.8%) of cash crops, 77,101 ha (11.3%) of pulses, 19,501 ha (2.9%) of oil seeds & oil nuts and 3,286 ha (0.5%) of fruits and vegetables.

- **Maize**

Maize was the dominant annual crop grown in Mwanza region and it had a planted area 1.5 times greater than cassava, which had the second largest planted area. The areas planted with maize constitute 30.7 percent of the total area planted with annual crops. Other crops in order of their importance (based on area planted) were paddy, cassava, sweet potatoes, beans, groundnuts and sorghum.

There was a sharp decrease in maize production from 109,000 tonnes in 1998/89 to 84,000 tonnes in 1999/2000 and then a sharp increase to 150,804 tonnes in 2002/03. 2003. The total production of maize in 2002/03 was 150,804 tonnes. The average area planted with maize per household ranged from 0.1 hectares in Ukerewe District to 1.0 hectares in Kwimba District. Geita district had the largest planted area of maize (64083 ha) followed by Magu (40,412 ha), Kwimba (39,709 ha), Sengerema (32,278 ha), Missungwi (26,675 ha), Ilemela (3,737 ha) and Ukerewe (1,617 ha).

- **Paddy**

Paddy was the second most important cereal crop in the region in terms of planted area. The number of households that grew paddy in Mwanza region during the short rainy season was 77,984. This represented 24.2 percent of the total crop growing households in Mwanza Region in the short rainy season. The total production of paddy was 81,805 tonnes from a planted area of hectare 87,231 resulting in a yield of 0.9 t/ha. The district with the largest area planted with paddy was Missungwi (24,726 ha) followed by Kwimba (20,641 ha), Sengerema (15,371 ha), Ilemela (14,865 ha), Magu (8,826 ha), Ukerewe (1,534 ha) and Geita (1,268 ha).

- **Cassava**

The area planted with cassava was larger than any other root and tuber crop in Mwanza region in terms of planted area (23.9% of the total area planted with annual crops and vegetables) and it accounted for 80.0 percent of the area planted with roots and tubers. The total production of cassava during the census year was 204,303 tonnes from a planted area of 141,223 hectares resulting in a yield of 1.4t/ha.

- **Fruit and Vegetables**

The total production of fruit and vegetables was 16,817 tonnes. The most cultivated fruit and vegetable crop was tomatoes. The production for this crop was 10,715 tonnes, which accounted for 63.7.4 percent of the total fruit and vegetable production, followed by onions 1,664 tonnes (10.9%) and cabbage 1,547 tonnes (10.1%). The production of the other fruit and vegetable crops was relatively small.

- **Permanent Crops**

The planted area of smallholders with permanent crops was 17,819 hectares which was 2.6 percent of the area planted with crops in the region. The most important permanent crop was mango which accounted for 35.7 percent of the total area planted with permanent crops followed by oranges (16.0%), bananas (12.7%)

- **Improved Seeds**

The planted area using improved seeds was 169,898 ha which represented 25.0 percent of the total area planted with annuals. The percentage use of improved seed in the short rainy season was 33.5 percent and higher than the corresponding percentage use for the long rainy season (9.5%).

- **Use of Fertilizers**

Most annual crop growing households did not use any fertilisers. The area planted without fertilisers for annual crops was 549,417 hectares representing 81 percent of the total area planted with annual crops. Of the area planted with fertiliser application, farm yard manure was applied to 115,464 ha which represented 17 percent of the total planted area (89 % of the area planted with fertiliser application). This was followed by Inorganic fertilizers (7,139 ha, 6%) and compost (7,087 ha) representing 5 percent of the area planted with fertilizers.

- **Irrigation**

In Mwanza region, the area of annual crops and vegetables under irrigation was 181,460 ha representing 26.7 percent of the total area planted. The area under irrigation during the short rainy season was 10,137 ha accounting for 5.6 percent of the total area under irrigation. However, the percentage of the planted area under irrigation during the long rainy season was 94.6 percent compared with 5.6 percent in the short rainy season.

- **Crop Storage**

There were 295,746 crop growing households (87.3% of the total crop growing households) that reported storing various agricultural products in the region.

The most important stored crop was maize with 273,370 households storing 20,026 tonnes as of 1st January 2004. This was followed by Beans & Pulses (130,653 households and 2,269 tonnes) Paddy (109,350 households and 12,144 tonnes), and sorghum & millet (26,270 households and 1,642 tonnes). The rest of the crops were stored in very small amounts.

- **Crop Marketing**

The number of households that reported selling crops was 243,200 which represent 71.8 percent of the total number of crop growing households. The percent of crop growing households selling crops was highest in Sengerema (78.3%) followed by Magu (76.6%), Geita (72.0%), Ukerewe (70.3%), Missungwi (67.0%), Kwimba (61.9%) and Ilemela (60.7%).

- **Agricultural Credit**

In Mwanza region, few agricultural households (9,991, 2.9%) accessed credit, out of which 7,358 (74%) were male-headed households and 209 (26%) were female headed households. In Ukerewe district there were no households heads who got credit for agricultural purposes, whereas in Geita only male households accessed credit. In Magu, Kwimba, Sengerema, Missungwi and Ilemela districts both male and female headed households' accessed credit.

- **Crop Extension Services**

The number of agricultural households that received crop extension was 71,522 (21% of total crop growing households in the region). Some districts had more access to extension services than others (Chart 3.106). Ilemela district had a relatively high proportion of households that received crop extension messages (65%), followed by Magu (40%), Missungwi (23%), Ukerewe (22%), Kwimba (18%), Sengerema (15%) and Geita (8%).

- **Soil Erosion and Water Harvesting Facilities**

The number of agricultural households that reported the presence of soil erosion and water harvesting facilities on their farms was 28,852. This number represents 8 percent of the total number of agricultural households in the region. The proportion of farmers with soil erosion control and water harvesting facilities was highest in Magu district (24%) followed by Kwimba (12%), Ukerewe (10%), Sengerema (6%), Missungwi (5%), Ilemela (4%) and Geita (1%).

- iii) **Livestock and Poultry Production**

- **Cattle**

The total number of cattle in the region was 1,718,191. Cattle were the most dominant livestock type in the region followed by goats, sheep and pigs. The region had 10.2 percent of the total cattle population on the Tanzanian Mainland. The number of indigenous cattle was 1,710,309 head (99.5% of the total number of cattle in the region), and 7,882 (0.5%) were dairy breeds. There were no beef breeds.

- **Goats**

The number of goat-rearing households was 124,250 (36.5% of all agricultural households) with a total of 829,997 goats giving an average of 7 heads of goats per goats-rearing household.

- **Sheep**

The number of sheep-rearing-households in the region was 24,433 (7% of all agricultural households) with a total of 121,978 sheep giving an average of 5 head of sheep per sheep-rearing-households.

- **Pigs**

The number of pig-rearing households in the region was 76 (0.02% of the total agricultural households) rearing about 610 pigs. This gives an average of 8 pigs per pig-rearing household.

- **Chicken**

The number of households keeping chickens was 240,279, raising 2,620,818 chickens. This gave an average of 11 chickens per chicken-rearing household. In terms of total number of chickens in the country Mwanza ranked second out of the 12 Mainland regions.

- **Use of Draft Power**

The region has 335,501 oxen and they were found in all districts, Magu (141,016), Ukerewe (112,801), Geita (89,023), Sengerema (75,944), Kwimba (28,873) and Missungwi with 645. Mwanza region has 20 percent of the total 2,233,927 head of oxen found on the Mainland and were used to cultivate 211,975 hectares of land.

- **Fish Farming**

The number of households involved in fish farming was 326 (0.1 percent of the total agricultural households in the region). Kwimba was the only district with agricultural households involved in fish farming.

- iv) **Poverty Indicators**

- **Availability of Toilets**

The results show that 85.3 percent of all rural agricultural households used traditional pit latrines, 2.1 percent used improved pit latrines and 3.3 percent had flush toilets. Households with no toilet facilities represented 9.2 percent of the total agriculture households in the region.

- **Household Assets**

Out of all assets, the bicycle was the most common household asset and was owned by 64% of the households, followed by radios (63%), iron (17%), wheelbarrow (6%), mobile phone (2%), television/video (1%), vehicle (1%) and landline phone (0.4%).

- **Source of Lighting Energy**

The wick lamp was the most common source of lighting energy in the region. About 74 percent of the total rural households used this source of energy followed by hurricane lamp (20.5%), pressure lamp (4.0%), mains electricity (0.8%), firewood (0.6%), solar (0.2%), candle (0.1%) and gas or biogas (0.1%).

- **Energy for Cooking**

The most prevalent source of energy for cooking was firewood, which was used by 96.4 percent of all rural agricultural households. The second most common source of energy for cooking was charcoal (2.7%). The rest of energy sources accounted for 0.88 percent. These were bottled gas (0.28%), crop residues (0.28%), mains electricity (0.14), solar (0.04%), livestock dung (0.04%), paraffin/kerosene (0.03%) and gas/biogas (0.01%).

- **Roofing Materials**

The most popular roofing material (for the main dwelling) was grass and/or leaves and was used by 49.3 percent of the rural agricultural households. It was closely followed by iron sheets (39.9%). Other roofing materials were grass/mud (9.1%), tiles (0.7%), asbestos (0.5%), concrete (0.4%) and others (0.2%).

- **Number of Meals per Day**

About 26 percent of the households in the region took three meals per day, 72 percent took two meals, 2 percent took one meal and 0.5 percent took four meals

- **Food Security**

Households which rarely had problems in satisfying their food needs represented 27.1 percent of the total number of agricultural households in the region. Households which often experienced problems represented 10.0 percent whereas those with little problems represented 3.7 percent. About 6.1 percent of the agricultural households always faced food shortages whilst 53 percent did not experience any food shortage problems.

- **Main Source of Cash Income**

Selling of food crops was the main cash income earning activity reported by 27.2 percent of all rural agricultural households. The second main cash income earning activity was casual labour (20.9%) followed by selling of cash crops (15.8%), businesses (9.9%) and fishing (8.2%). Other income earning activities were livestock (4.5%), employment (4.1%) sale of forest products (2.3%) and sale of livestock products (1.8%)

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1. BACKGROUND INFORMATION

1.1 Introduction

This part of the report presents a brief description of the regional profile by providing information on geographical location, land area, climate, administrative set up, population and socio-economic indicators. The information will provide the user with a general understanding of the region and its resources.

1.2 Geographical Location and Boundaries

Mwanza region lies in the northern part of Tanzania located between latitude 1° 30' and 3° south of the Equator. Longitudinally the region is located between 31° 45' and 43° 10' east of Greenwich, the northern part of the region is surrounded by the waters of Lake Victoria, locally known as Lake Nyanza. That water in turn separates the region from the neighbouring countries of Kenya and Uganda. To the west is Kagera region while the South and Southern parts border Shinyanga region, Mara region borders Mwanza in the northeast.

The region is divided into eight districts namely Ukerewe, Magu, Kwimba, Sengerema, Geita, Missungwi, Ilemela and Nyamagana. The region headquarters is located in Nyamagana District.

1.3 Land Area

The region has an area of 35,187 sq.km: out of this area, 20,095 sq.km is dry land and 15,092 sq.km is covered by Lake Victoria.

1.4 Climate

1.4.1 Temperature

The temperature in the region is to some extent influenced by Lake Victoria, about 25° to 28°C being generally the average maximum temperature from September to December. The cool dry season from June to August experiences low temperatures which range between 20° - 11°

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1.4.2 Rainfall

The average annual rainfall of Mwanza region is about 930mm varying from 1,800mm in the western parts of Ukerewe Island to 570 mm. Under normal conditions the rainfall is distributed mainly during two periods, namely the short rains in October-December and long-rains from March to May. There is a dry spell from January to March.

1.5 Population

Mwanza region has the largest population of any region in Tanzania. It has a population of 2,929,644 according to the 2002 population census

1.6 Socio - Economic Indicators

The regional Gross Domestic Product (GDP) at current prices for the year 2003 was estimated to be TSh 835,048 million with a per capita income of shillings 277,556 . The region held 6th position among regions on GDP and contributed about percent to the national GDP

The main economic activities carried out by Mwanza region's population are agricultural production, livestock keeping and to significant extent fishing. There is no commercial farming in the region. Subsistence farming is the main form of farming.

Mwanza region possesses great development potential and which is relatively well developed, the region is connected to the other part of the country by road, rail, water and air networks.

2.1 Introduction

This part of the report provides the technical and operational description of the National Sample Census of Agriculture (NSCA), carried out in the rural areas of Tanzania Mainland and Zanzibar during the 2002/03 agricultural year. It details the background and the rationale for carrying out the NSCA in 2002/03 agricultural year. It also explains the sampling procedures, designing and implementation of the data processing system.

2.2 The Rationale for Conducting the National Sample Census of Agriculture

In 2003, the Government of Tanzania launched the Agricultural Sample Census as an important part of the Poverty Monitoring Master Plan which supports the production of statistics for advocacy of effective public policy, including poverty reduction, access to services, gender, as well as the standard crop production data normally collected in an agriculture census. The census is intended to fill the information gap and support planning and policy formulation by high level decision making bodies. It is also meant to provide critical benchmark data for monitoring Agriculture Sector Development Programme (ASDP) and other agriculture and rural development programs as well as prioritising specific interventions of most agriculture and rural development programs.

Following the decentralisation of the Government's administration and planning functions, there has been a pressing need for agriculture and rural development data disaggregated at regional and district levels. The provision of district level estimates will provide essential baseline information on the state of agriculture and support decision making by the Local Government Authorities in the design of District Agricultural Development and Investment Projects (DADIPS). The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

This report (Volume V) is among the 21 regional reports for the mainland. Other Census reports include the Technical Report (Volume I), crop sector at national and regional levels including Zanzibar estimates (Volume II), Livestock Report (Volume III), Smallholder Household Characteristics and Access to Natural Resources Report (Volume IV), 21 Regional Reports for the Mainland (Volume V), Large Scale Farms Report (Volume VI) and a separate report for Zanzibar (Volume VII). In order to address the specific issue of gender, a separate thematic report on gender has been published. Other thematic reports will be produced depending on the demand and availability of funds. In addition to these reports two dissemination applications have been produced to allow users to create their own tabulations, charts and maps.

The report is divided into five main sections: Background Information, Introduction, Results, Evaluation and Conclusion and Appendices. The definitions relating to all aspects of this report can be found in the questionnaire (Appendix III).

2.3 Census Objectives

The 2003 Agriculture Sample Census was designed to meet the data needs of a wide range of users down to district level including policy makers at local, regional and national levels, rural development agencies, funding institutions, researchers, Non government Organisations (NGOs), farmer organisations, etc. As a result, the dataset is both more numerous in its sample and detailed in its scope compared to previous censuses and surveys. To date this is the most detailed Agricultural Census carried out in Africa. The census was carried out in order to:

Identify structural changes if any, in the size of farm household holdings, crop and livestock production, farm input and implement use. It also seeks to determine if there are any improvements in rural infrastructure and in the level of agriculture household living conditions;

- Provide benchmark data on productivity, production and agricultural practices in relation to policies and interventions promoted by the Ministry of Agriculture and Food Security and other stake holders.

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- Establish baseline data for the measurement of the impact of high level objectives of the Agriculture Sector Development Programme (ASDP), National Strategy for Growth and Reduction of Poverty (NSGRP) and other rural development programs and projects.
 - Obtain benchmark data that will be used to address specific issues such as: food security, rural poverty, gender, agro-processing, marketing, service delivery, etc.

2.4 Census Coverage and Scope

The census was conducted for both large and small scale farms. The National Sample Census of Agriculture covered a total of 3,221 selected rural villages of Tanzania Mainland out of which 215 villages were from Mwanza region.

The census covered agriculture in detail as well as many other aspects of rural development and was conducted using three types of questionnaires:

- Small scale farm questionnaire
- Community level questionnaire
- Large scale farm questionnaire

The small scale farm questionnaire was the main census instrument and it includes questions related to crop and livestock production and practices; population demographics; access to services, resources and infrastructure; issues on poverty, gender and subsistence versus profit making production units. The main sections covered are as follows:

- Identification (i.e. region, district, ward and village)
- Household and holding characteristics
- Household information
- Land ownership/tenure
- Land use
- Access and use of resources
- Crop and vegetable production
- Agro processing and by-Products
- Crop storage and marketing
- On-farm investment
- Access to farm inputs and implements
- Use of credit for agricultural purposes
- Tree farming/agro-forestry
- Crop extension services
- Livelihood constraints
- Animal contribution to crop production
- Livestock
- Livestock products
- Fish farming
- Livestock extension
- Labor use
- Access to infrastructure and other services
- Household facilities

The community level questionnaire was designed to collect village level data such as access and use of common resources, community tree plantation and seasonal farm gate prices.

The large scale farm questionnaire was administered to large scale farms that were either privately or corporately managed. There will be a national report on large scale farming on Tanzania Mainland.

2.5 Legal Authority of the National Sample Census of Agriculture

The NSCA 2002/03 was conducted under the legal authority of the 2000 National Bureau of Statistics Act which, among other things, makes data collected from individuals strictly confidential and to be used for statistical purposes only.

2.6 Reference Period

Two types of reference periods were used namely the agricultural year and the reference date for livestock enumeration. The agricultural year 2002/03 (that is October 2002 to September 2003) was used for the data items that are related to crop production. The reference date of enumeration for livestock and poultry count was 1st October 2003.

2.7 Census Methodology

The main focus at all stages of the census execution was on data quality and this is emphasised in this section. The main activities undertaken include:

- Census organisation
- Tabulation plan preparation
- Sample design
- Design of census questionnaires and other instruments.
- Field pretesting of the census instruments
- Training of trainers, supervisors and enumerators
- Information Education and Communication (IEC) campaign
- Data Collection
- Field supervision and consistency checks
- Data processing:
 - Scanning
 - ICR extraction of data
 - Structure formatting application
 - Batch validation application
 - Manual data entry application
 - Tabulation preparation using SPSS
- Table formatting and charts using Excel, map generation using ArcView and Freehand.
- Report preparation using Word and Excel.

2.7.1 Census Organization

The Census was conducted by the National Bureau of Statistics in collaboration with the sector ministries of agriculture, and the Office of the Chief Government Statistician in Zanzibar. At the national level the Census was headed by the Director General of the National Bureau of Statistics with assistance from the Director of Economic Statistics. The Planning Group, made up of staff from the National Bureau of Statistics, Department of Agricultural Statistics and three representatives from the Ministry of Agriculture and Food Security (Department of Policy and Planning), supervised the overall operational aspects of the Census and guidance was provided by the Agriculture Sample Census Consultant. At the regional level, implementation of census activities was overseen by the Regional Statistical Officer of NBS and the Regional Agriculture Supervisor from the Ministry of Agriculture and Food Security. At the District level, two supervisors from the President's Office, Regional Administration and Local Government (PORALG), managed the enumerators who also came from the same ministry.

Members of the Planning Group had a minimum qualification of a bachelor degree; the regional supervisors were agricultural economists, statisticians or statistical officers. The district supervisors and enumerators had diploma level qualifications in agriculture.

The Census and Surveys Technical Working Group provided support in sourcing financing, approving budget allocations and technical assistance inputs as well as monitoring the progress of the census. A Technical Committee for the census was established with members from key stakeholder organisations (i.e. NBS, sector ministries of agriculture, President's Office, Planning and Privatization (POPP), PORALG, University of Dar es Salaam (UDSM), Tanzania Food and Nutrition Centre (TFNC) and the Office of Chief Government Statistician (OCGS) in Zanzibar). The main function of the committee was to approve the proposed instruments and procedures developed by the Planning Group. It also approved the tabulations and analytical reports prepared from the Census data.

2.7.2 Tabulation Plan

The tabulation plan was developed following three user group workshops and thus reflects the information needs of the end users. It took into consideration the tabulations from previous census and surveys to allow trend analysis and comparisons.

2.7.3 Sample Design

The Mainland sample consisted of 3,221 villages. These villages were drawn from the National Master Sample (NMS) developed by the National Bureau of Statistics (NBS) to serve as a national framework for the conduct of household based surveys in the country. The National Master Sample was developed from the 2002 Population and Housing Census. In most cases, within each selected village, data was collected from a sub-sample of fifteen agricultural households. In few large villages thirty households were selected. The total Mainland sample was 48,315 agricultural households. In Zanzibar a total of 317 EAs were selected and 4,755 agricultural households were covered. Nationwide, all regions and districts were sampled with the exception of three urban districts (two from Mainland and one from Zanzibar).

In both Mainland and Zanzibar a stratified two stage sample was used.

In the first stage, villages/enumeration areas (EAs) were selected with probability proportional to the number of villages in each district. In the second stage, 15 households were selected from a list of farming households in each Village/EA using systematic random sampling. Table 2.1 gives the sample size of households, villages and districts for Tanzania Mainland and Zanzibar.

Table 2.1: Census Sample Size

Number of	Mainland	Zanzibar	Total
Households	48,315	4,755	53,070
Villages/Eas	3,221	317	3,539
Districts	117	9	126
Regions	21	5	26

2.7.4 Questionnaire Design and Other Census Instruments

The census questionnaires were designed following user/producer meetings to ensure that the information collected was in line with their data needs. Several features were incorporated into the design of the questionnaire to increase the accuracy of the data:

- Where feasible all variables were extensively coded to reduce post enumeration coding error.
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the farmer.
- The responses to all questions were placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and ICR technologies for data entry.
- Skip patterns were used to avoid asking unnecessary questions
- Each section was clearly numbered, which facilitated the use of skip patterns and provided a reference for data type coding for the programming of CSPro, SPSS and the dissemination applications.

Besides the questionnaires, there were other instruments used:

- Village listing forms that were used for listing households in the villages and from this list a systematic sample of 15 agricultural households were selected from each village.
- Training manual which was used by the trainers for the cascade/pyramid training of supervisors and enumerators. This manual was trainers guiding document on the procedures to follow during than training
- Enumerator Instruction Manual which was used as reference material.

2.7.5 Field Pre-Testing of the Census Instruments

The Questionnaire was pre-tested in five locations (Arusha, Dodoma, Mwanza, Unguja and Pemba). This was done purposely to test the wording, flow and relevance of the questions and to finalise crop lists, questionnaire coding and manuals. In addition to this, several data collection methodologies had to be finalised, namely, livestock numbers in pastoralist communities, cut flower production, mixed cropping, use of percentages in the questionnaire and finalising skip patterns and documenting consistency checks.

2.7.6 Training of Trainers, Supervisors and Enumerators

Cascade/pyramid training techniques were employed to maintain statistical standards. The top level training was provided to 66 national and regional supervisors (3 per region plus Zanzibar). The trainers were members of the Planning Group and the trainees were from the National Bureau of Statistics and the sector ministries of agriculture. The second level training was for the district supervisors and enumerators. This training was conducted in the regions. In each region three training sessions were conducted for the district supervisors and enumerators. In addition to training in field level Census methodology and definitions, emphasis was placed on training the enumerators and supervisors in consistency checking. Tests were given to the enumerators and supervisors and the best 50 percent of the trainees were selected to administer the smallholder and community level questionnaires. This increased the number of interviews per enumerator but it also released finance to increase the number of supervisors and hence the Supervisor Enumerator Ratio. The household listing exercise was carried out by all trained enumerators.

2.7.7 Information, Education and Communication (IEC) Campaign

Information, Education and Communication (IEC) is an important aspect of any census/survey undertaking. This is due to the fact that inadequately informed and hence uncooperative citizens may jeopardize the entire census/survey. As far as the

2002/03 Agricultural Sample Census was concerned, the main objective of the IEC program was to sensitize and mobilize Tanzanians to support, cooperate and participate in the census exercise.

Radio, television, newspapers, leaflets, t-shirts and caps were used to publicise the Sample Census. T-shirts and caps were used by the field staff and the village chairmen as official uniforms during the field work. The village chairmen helped to locate the selected households.

2.7.8 Household Listing

The household listing exercise was done in seven days. During the listing exercise, forms ACLF1 and ACLF2 were administered. The information collected included the number of fields operated by the household, the number of different types of livestock and poultry. This information was used to determine the agricultural households. From the list of agricultural households, 15 households were selected for the interview. The selection was done using the Random Number Table.

2.7.9 Data Collection

Data collection activities for the 2002/2003 Agricultural Sample Census took three months from January to March 2004. The data collection methods used during the census were by interview and no physical measurements, e.g., crop cutting and field area measurement were taken. Field work was monitored by a hierarchical system of supervisors at the top of which was the Mobile Response Team followed by the national, regional, and district supervisors.

The Mobile Response Team consisted of three principal supervisors who provided overall direction to the field operation and responded to queries arising outside the scope of the training exercise. The mobile response team consisted of the Manager of Agriculture Statistics Department, Long-term Consultant and Desk Officer for the Census. Decisions made on definitions and procedures were then communicated back to all enumerators via the national, regional and district supervisors.

District supervision and enumeration were done by staff from the President's Office, Regional Administration and Local Government (PORALG). National and regional supervisions were provided by senior staff of the National Bureau of Statistics and the sector ministries of agriculture. During the household listing exercise 3,221 extension staff were used. For the enumeration of the small holder questionnaire, 1,611 enumerators were used and additional 5 percent enumerators were held in reserve in case of drop outs during the enumeration exercise.

2.7.10 Field Supervision and Consistency Checks

Enumerators were trained to probe the respondents until they were satisfied with the responses given before they recorded them in the questionnaire. The first check of the questionnaires was done by enumerators in the field during enumeration. The second check was done by the district supervisors followed by regional and national supervisors. Supervisory visits at all levels of supervision focused on consistency checking of the questionnaires. Inconsistencies encountered were corrected, and where necessary a return visit to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made through a major post enumeration checking exercise where all questionnaires were checked for consistencies by all supervisors in the district offices.

2.7.11 Data Processing

Data processing consisted of the following processes:

- Manual editing
- Data entry
- Data structure formatting
- Batch validation
- Tabulation
- Illustration production
- Report formatting

Manual Editing

Prior to scanning, all questionnaires underwent a manual cleaning exercise. This involved checking that the questionnaire had a full set of pages, correct identification and good handwriting. A score was given to each questionnaire based on the legibility and the completeness of enumeration. This score will be used to assess the quality of enumeration and supervision in order to select the best field staff for future censuses/surveys.

Data entry/Scanning and ICR Extraction Technologies

Scanning and ICR data capture technology was used for the small holder questionnaire. This not only increased the speed of data entry, it also increased the accuracy due to the reduction in keystroke errors. Interactive validation routines were incorporated into the ICR software to track errors during the verification process. The scanning operation was so successful that it is highly recommended that this technology be adopted for future censuses/surveys.

The Census and Surveys Processing Program (CSPro) was used to enter 2,880 of small holder questionnaires that were rejected by the Intelligent Character Recognition (ICR) extraction application.

Data Structure Formatting

A program was developed in visual basic to automatically alter the structure of the output from the scanning/extraction process in order to harmonise it with the manually entered data. The program automatically checked and changed the number of digits for each variable, the record type code, the number of questionnaires in the village, the consistency of the Village Identification (ID) code and saved the data of one village in a file named after the village code.

Batch validation

A batch validation program was developed in order to identify inconsistencies within a questionnaire. This is in addition to the interactive validation during the ICR extraction process. The procedures varied from simple range checking within each variable to more complex checking between variables. It took six months to screen, edit and validate the data from the smallholder questionnaire. After the long process of data cleaning, the results were prepared based on a pre-designed tabulation plan.

Tabulations

Statistical Package for Social Sciences (SPSS) was used to produce the Census results and Microsoft Excel was used to organize the tables and compute additional indicators.

Analysis and Report Preparation

The analysis in this report focuses on regional and district production estimates, districts comparisons and time series analysis. Microsoft Excel was used to produce charts; whereas Microsoft Word was used to compile the report.

Data quality

A great deal of emphasis was placed on data quality throughout the whole exercise from planning, questionnaire design, training, supervision, data entry, validation and cleaning/editing. As a result of this NBS believes that the Census is highly accurate and representative of what was experienced at field level during the Census year. With very few exceptions the variables in the questionnaire are within the norms for Tanzania and they follow expected time series trends when compared to historical data. Standard Errors and Coefficients of Variation for the main variables can be found in the Technical Report (Volume I).

2.8 Funding Arrangements

The Agricultural Sample Census was supported mainly by the European Union (EU) who financed most of the operational activities. Other funds for operational activities came from the Government of Tanzania, Government of Japan, United Nations Development Programme (UNDP) and other partners in the Pool Fund of the Vice President's Office (VPO). In addition to this, technical assistance was provided by the European Union (EU), Department for International Development (DFID) and Japanese International Cooperation Agency (JICA). Technical assistances were managed by Ultek Laurence Gould Consultants (ULG), Scotts Agriculture Consultancy Services and the Food and Agriculture Organisation (FAO).

3. CENSUS RESULTS

This part of the report presents the census results for Mwanza region, based on the data tables presented in Appendix A2. The results are presented in different forms including brief summaries, charts, condensed tables and graphs and Maps in order to make it easier for the users to understand. Comparisons are made between related variables and between districts. Comparisons are also made with past censuses/surveys results such as the 1994/95 National Sample Census of Agriculture (NSCA), the 1995/96 and the 1996/97 Expanded Agricultural Surveys, the 1997/98 Integrated Agricultural Surveys, the 1998/99 District Integrated Agricultural Survey and the 1999/00 Rapid Agricultural Appraisal Survey. . The presentation of results is divided into four main sections which are household characteristics, crop results, livestock results and poverty indicators. Compared to previous censuses and surveys, more effort has been placed in analyzing the results in order to formulate solid conclusions.

3.1 Household Characteristics

3.1.1 Type of Household

The number of agricultural households in Mwanza region was 340,085. The largest number of agriculture households was in Geita (93,286) followed by Sengerema (64,661), Magu (56,360) Kwimba (45,813) Missungwi (34,132) Ukerewe (32,909) and Ilemela (12,922) (Map 1). The highest density of households was found in Missungwi (40/km²) and Geita (33/km²) (Map 3.2). Most households (197,780, 58%) were involved in growing crops only, 1,156 (0.3%) rearing livestock only, and 141,149 (41.5%) were involved in crop production as well as livestock keeping. There were no pastoralists in Mwanza Region. (Chart 3.1 and Map 3.1, 3.2, 3.3 and 3.6)

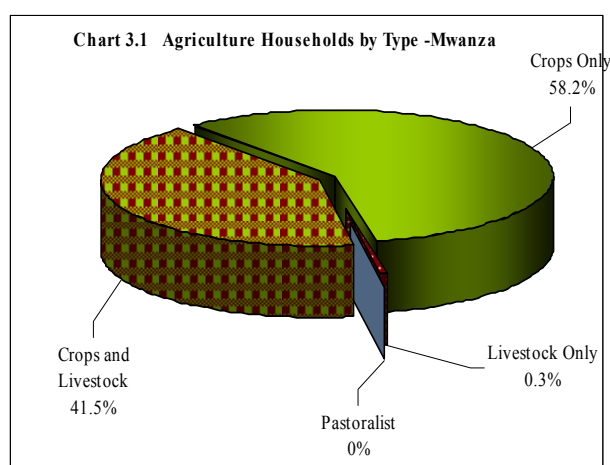
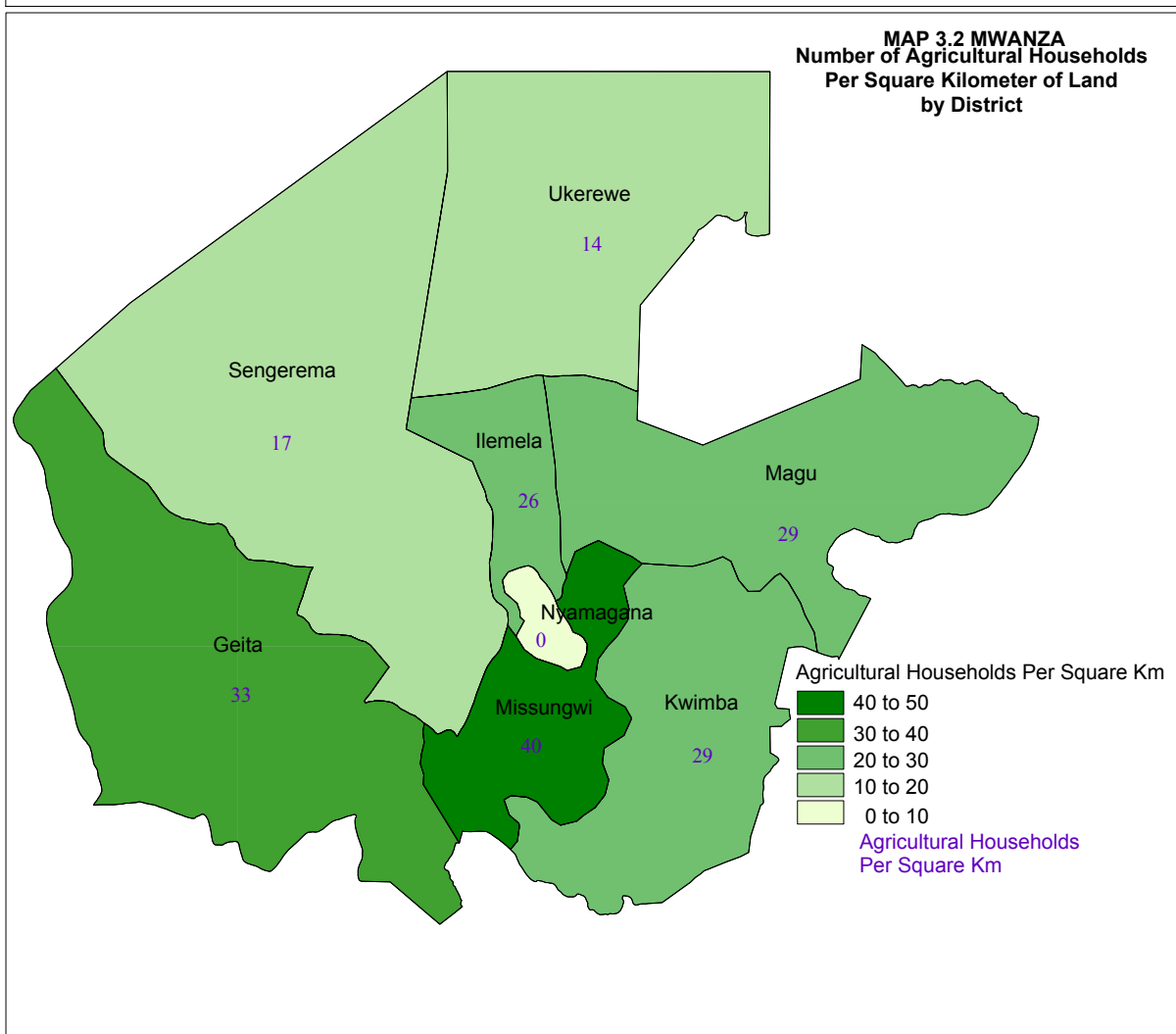
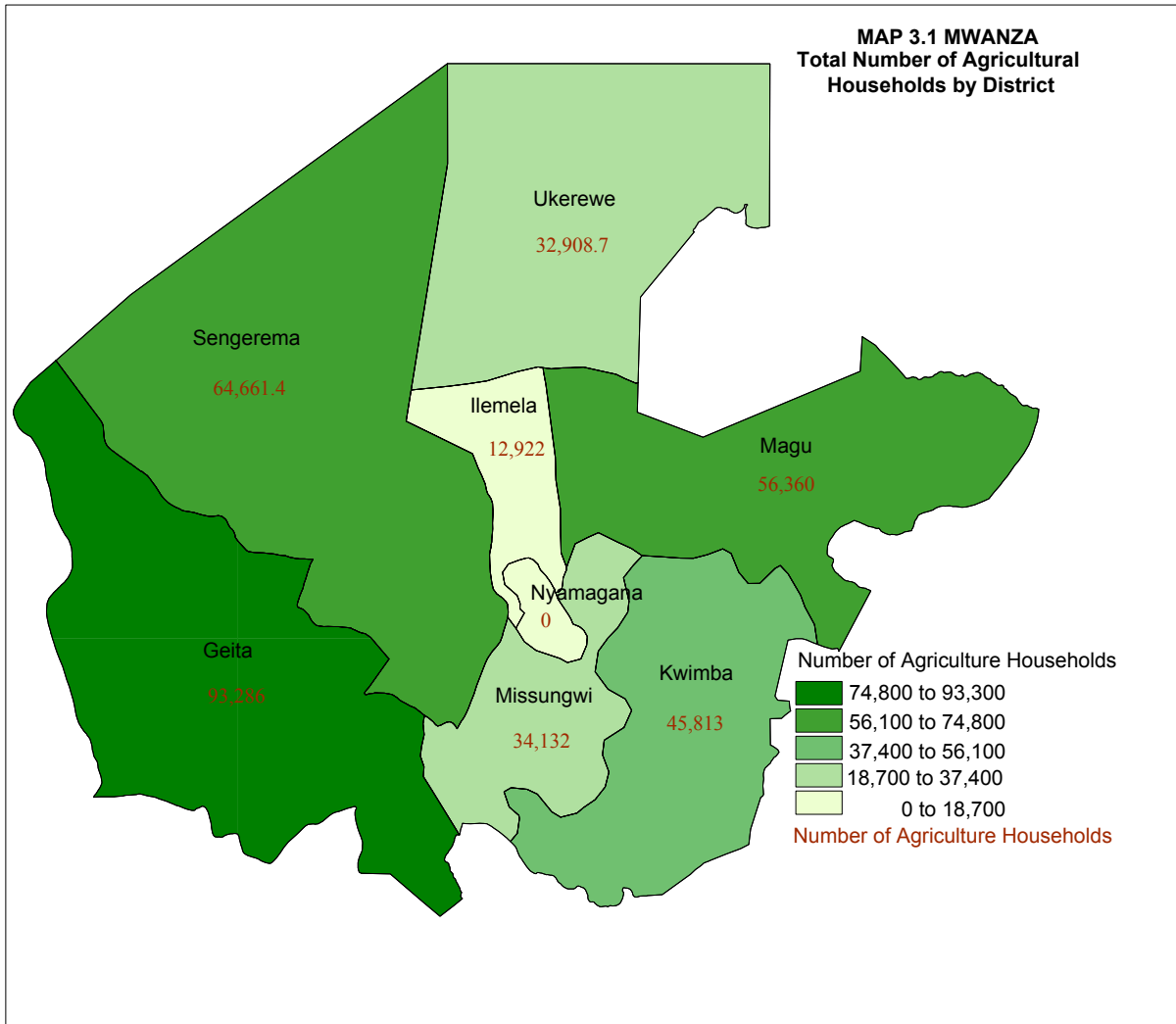


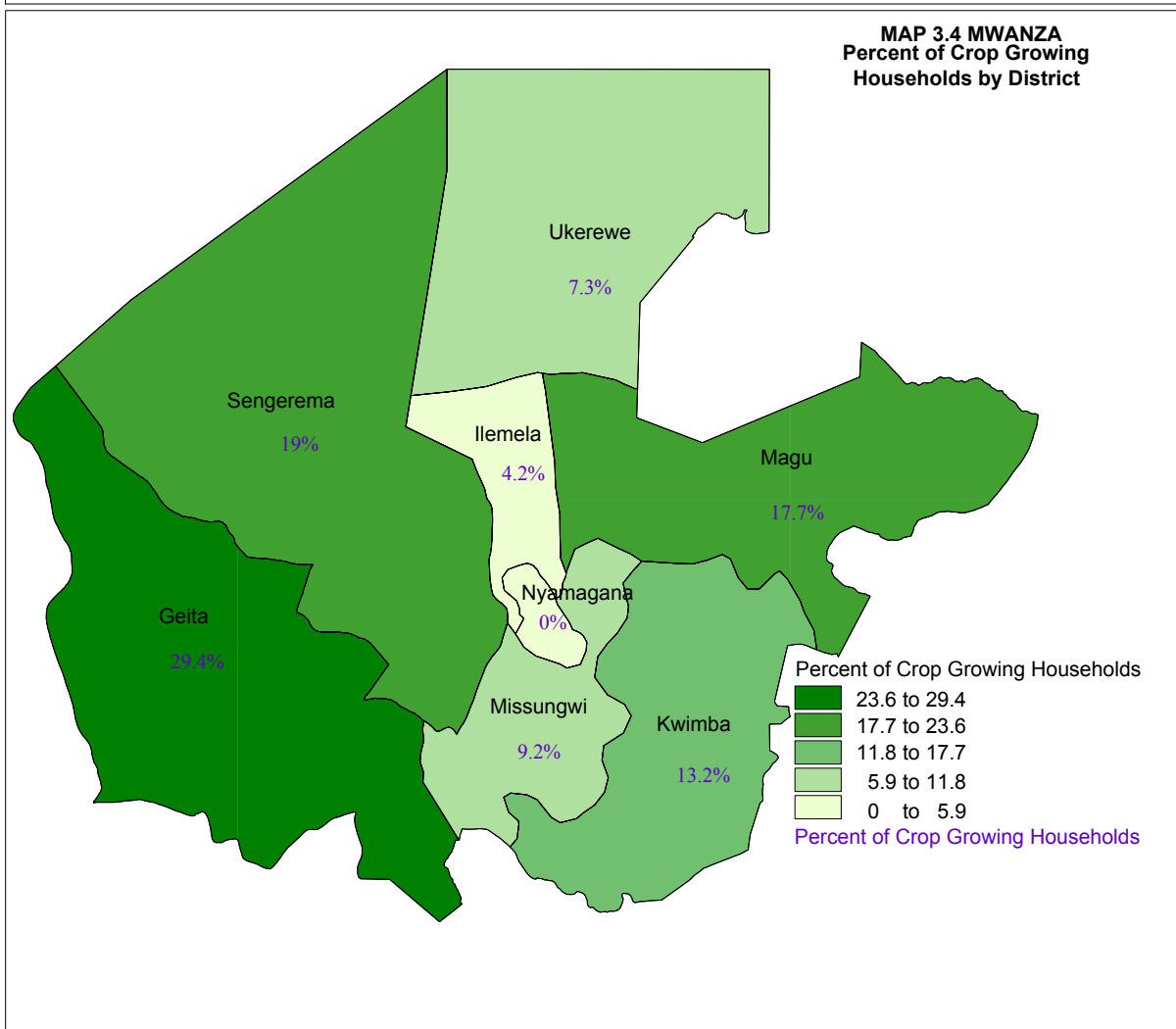
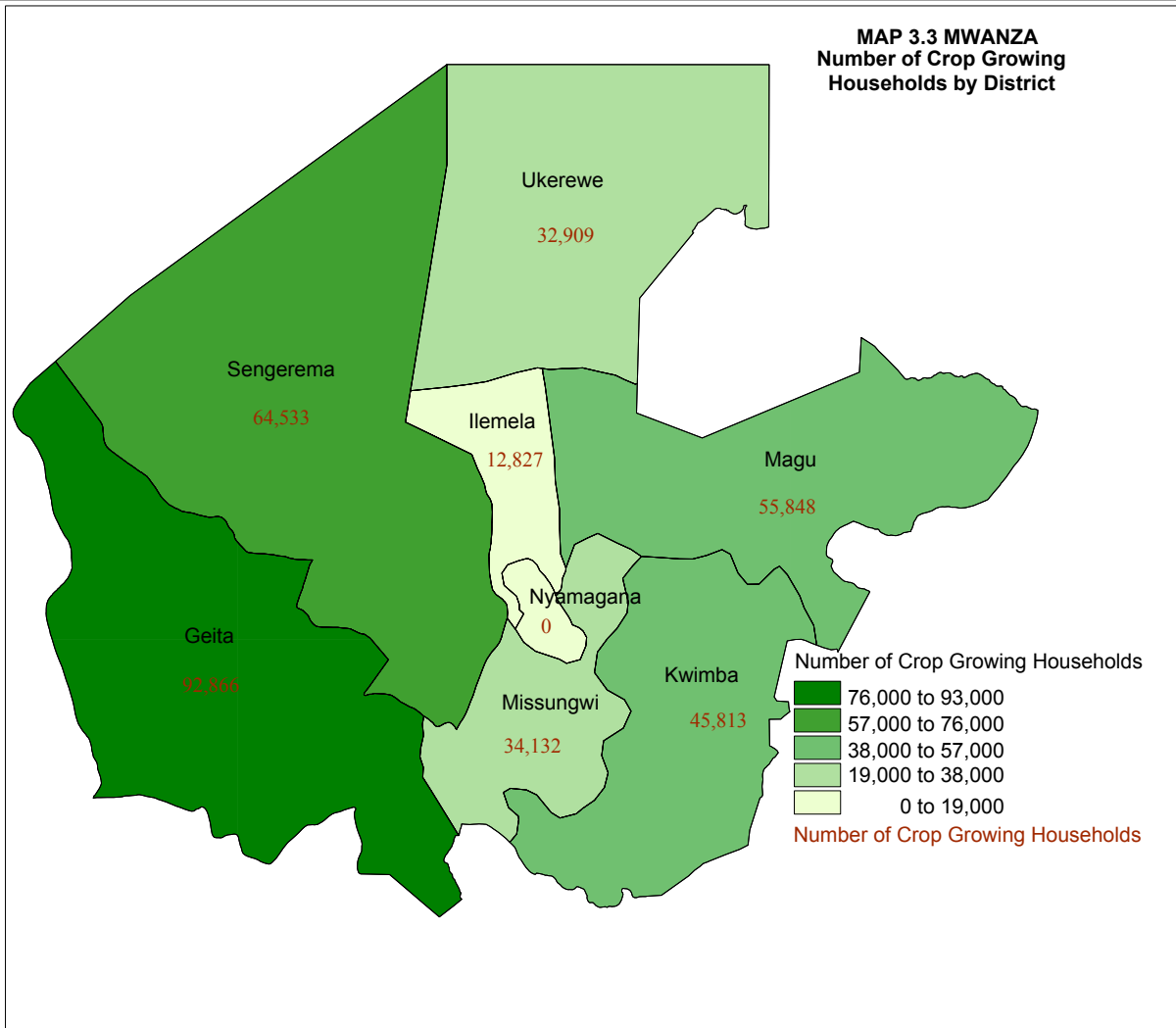
Table 3.1: The Livelihood Activities/Source of Income of the Households Ranked in Order of Importance by District

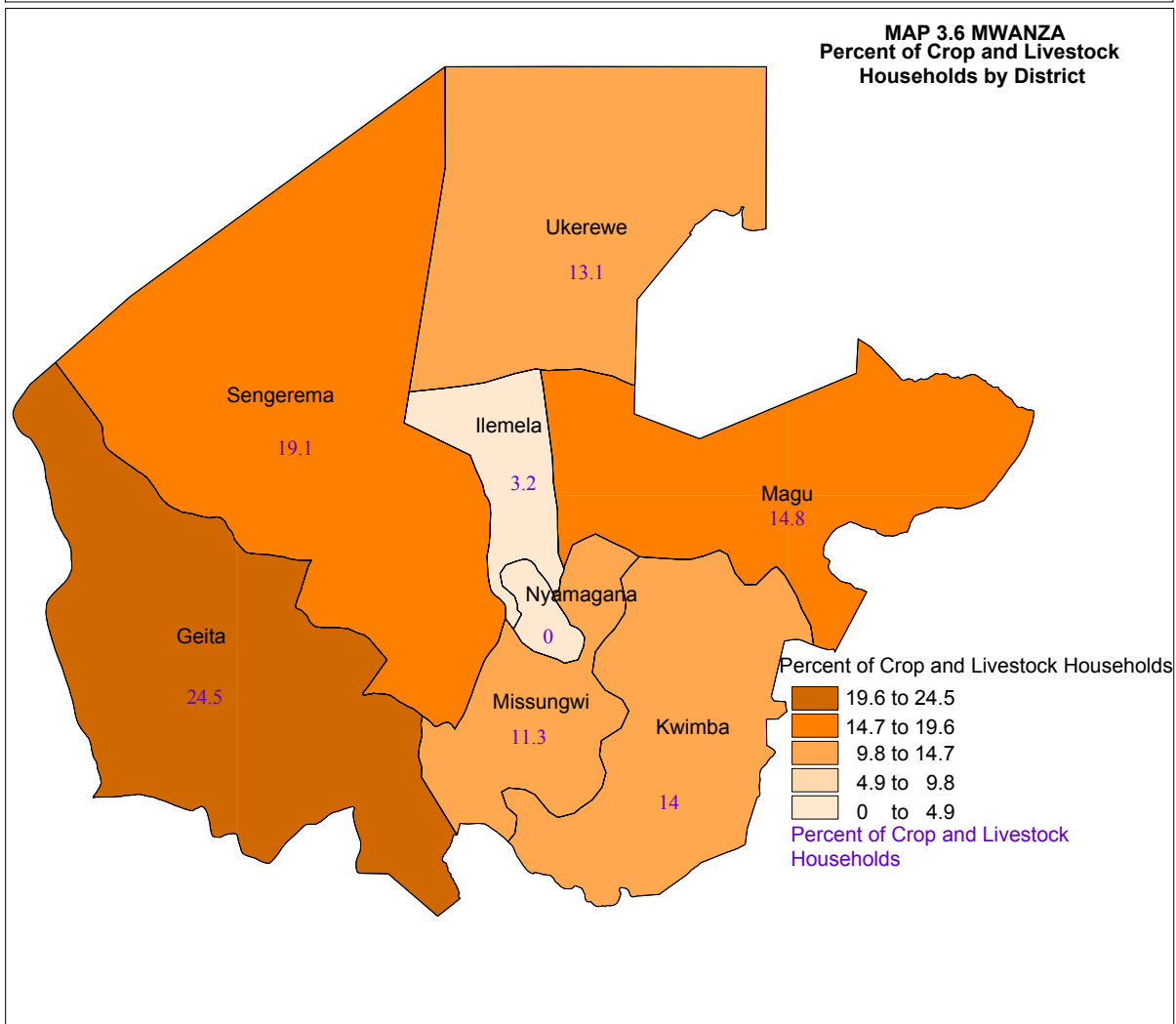
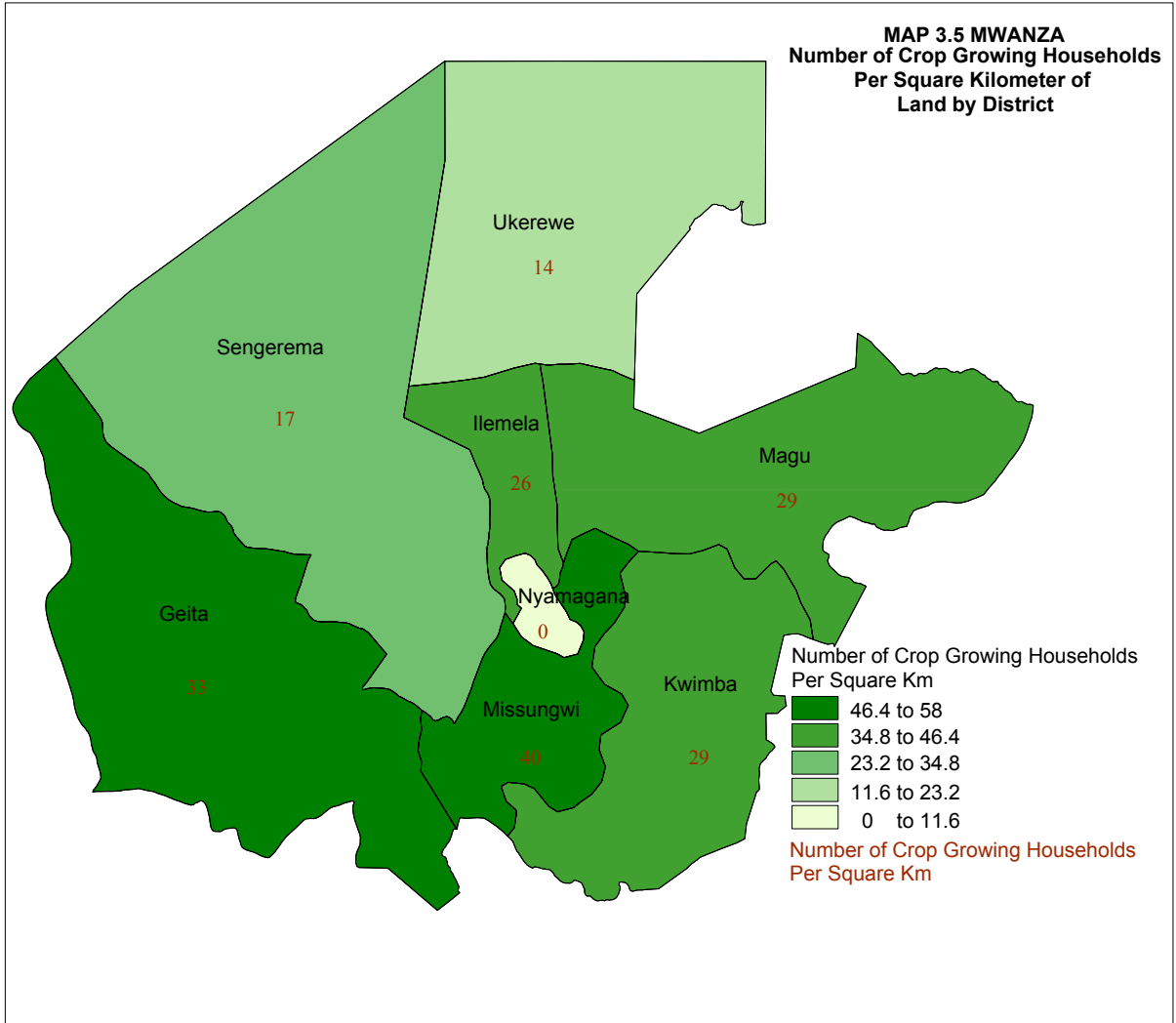
District	Livelihood Activity						
	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	2	1	4	3	7	5	6
Magu	1	4	5	3	6	7	2
Kwimba	1	5	4	2	6	7	3
Sengerema	1	2	5	3	7	6	4
Geita	1	4	5	3	6	7	2
Missungwi	1	2	5	4	6	7	3
Ilemela	1	2	5	3	7	6	4
Total	1	3	5	2	7	6	4

3.1.2 Livelihood Activities/Source of Income

The census results for Mwanza region indicates that most of the agricultural households ranked annual crop farming as an activity that provided most of their livelihood followed by off farm income, permanent crop farming, tree/forest resources,





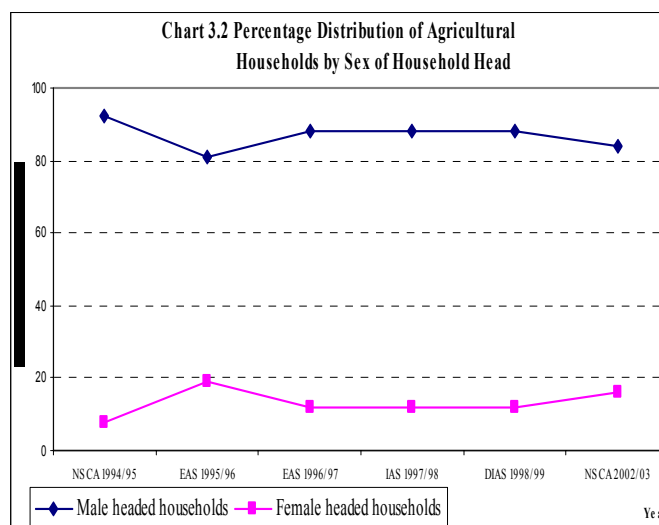


livestock keeping/herding, fishing/hunting & Gathering and remittances (Table 3.1). Ukerewe district was the district where annual crop farming was not the most important livelihood activity and was replaced by permanent crop farming.

3.1.3 Sex and Age of Heads of Households

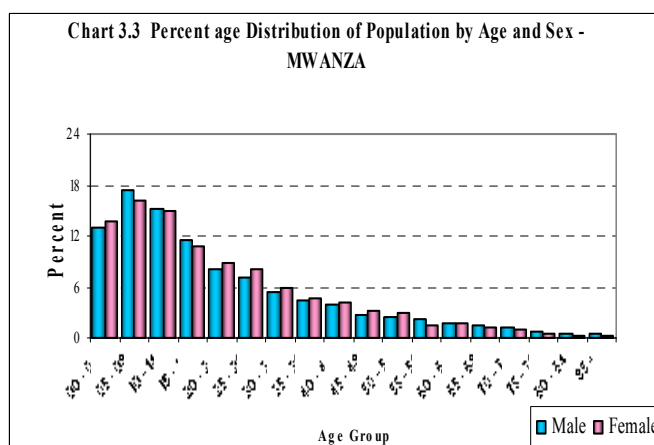
The number of male-headed agriculture households in Mwanza region was 286,000 (84% of the total regional agricultural Households) whilst in female-headed households it was 54,000 (16% of the total regional agricultural households). The mean age of household heads was 47 years (46 years for males and 52 years for female heads) (Chart 3.2).

The percentage trend for six censuses/surveys years shows that there has not been any significant change in the distribution of agricultural households between male and female headed households.



3.1.4 Number and Age of Household Members

Mwanza region had a total rural agricultural Population of 2,134,382 of which 1, 082,746, (50.7%) were males and 1,051,636 (49.3%) were females. Whereas age group 0-14 constituted 45.2 percent of the total rural agricultural population, age group 15-64 (active population) was 50.7 percent. Mwanza region had an average household size of 6 with Ilemela district having the lowest households' size of 4. (Chart 3.3)



3.1.5 Level of Education

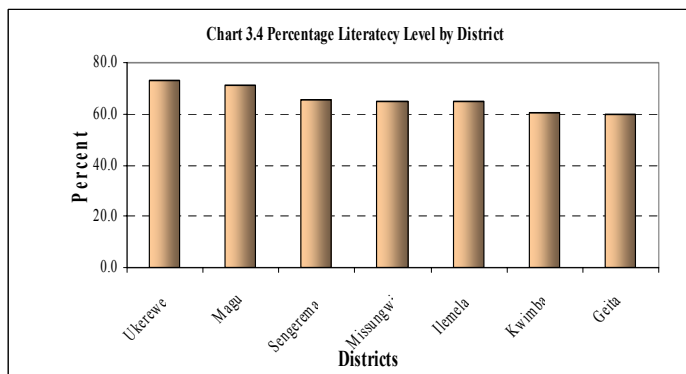
In order to obtain information on the level of education, information on literacy and education attainment were obtained for all persons aged five years and above in all households.

Literacy

The information on literacy level for family members aged five years and above was obtained by asking individual private households if their respective family members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy is based on the ability to read and write Swahili, English or both.

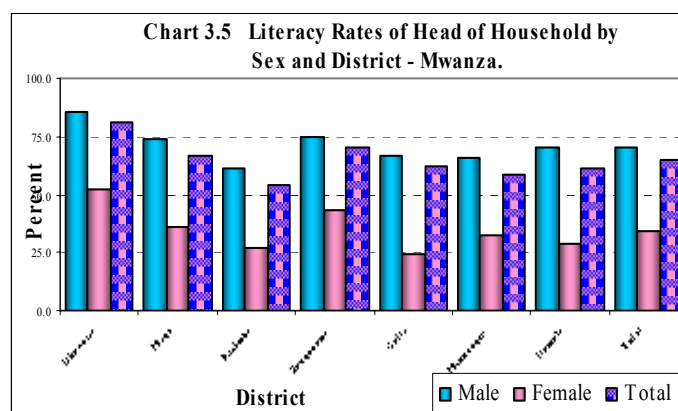
Literacy Level for Household Members

Mwanza region had a total literacy rate of 64 percent. The highest literacy rate was found in Ukerewe district (73.0%) followed by Magu district (71.4%), Sengerema district (65.2%), Missungwi district (65.0%), Ilemela district (64.0%), Kwimba and Geita had the lowest literacy rates of 60.3 and 59.3 percent respectively.



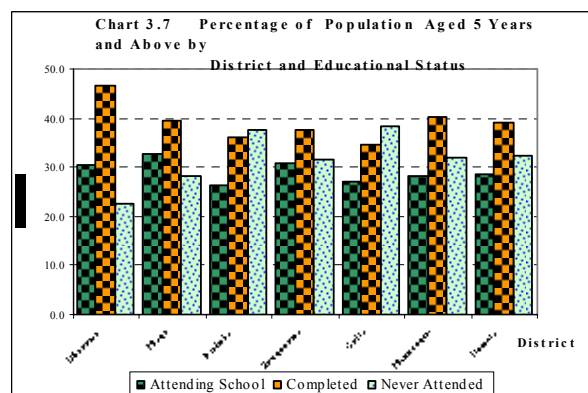
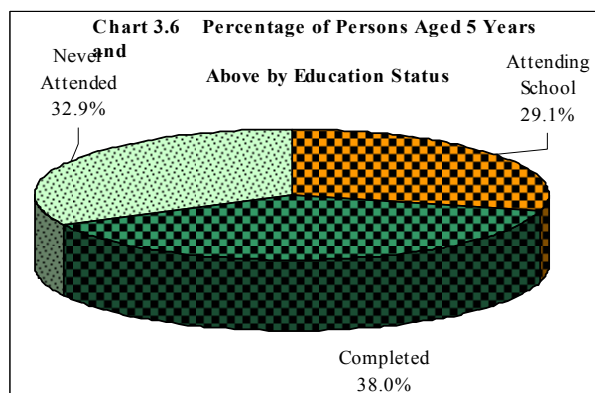
Literacy Rates for Heads of Households

The literacy rate for the heads of households in the region was 64.7 percent. The literacy rates among the male and female heads of households were 70.6 and 33.8 respectively. Male head of household literacy rate was higher than that of females in all districts. The district with the highest literacy rate amongst heads of households was Ukerewe (85.2%) followed by Sengerema (74.8%), Magu (73.7%), Ilemela (70.7%), Geita (66.5%), Missungwi and Kwimba had (66.1%) and (61.3%) respectively (Chart 3.5).



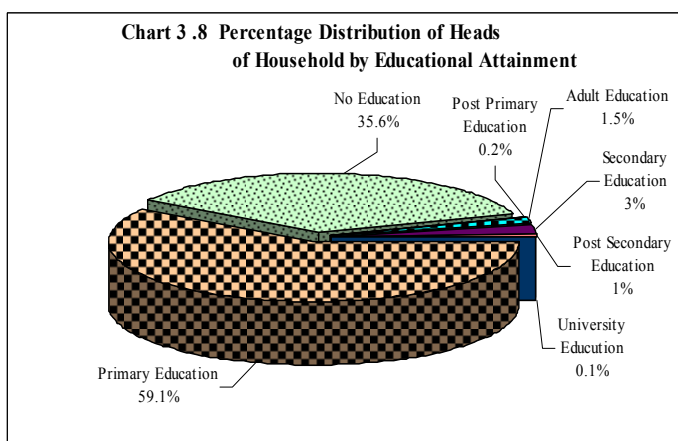
Educational Status

Information on educational status was collected from individual agricultural households. The results show that 38.0 percent of the population aged 5 years and above in agricultural households in the region had completed different levels of education and 29.1 percent were still attending school. Those who have never attended school were 32.9 percent (Chart 3.6).



Agricultural households in Ukerewe district had the highest percentage (46.7%) of population aged 5 years and above who had completed different levels of education. This was followed by Missungwi district (40.1%), Magu district (39.3%), Ilemela district (38.9%), Sengerema district (37.7%), Kwimba and Geita districts had the lowest percentage of 36.0 and 34.6.

The number of heads of agricultural households with formal education in Mwanza region was 213,880 (62.9%), those without formal education were 126,204 (37.1%) and those with only adult education were 5,144 (1.5%). The majority of heads of agricultural households (59.1%) had primary level education whereas only 0.1% had University education (Chart 3.8).

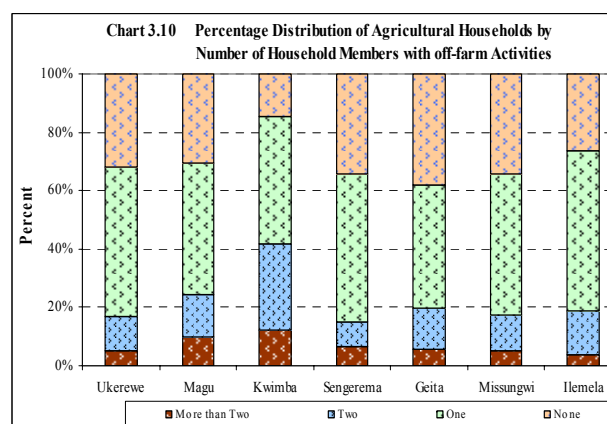
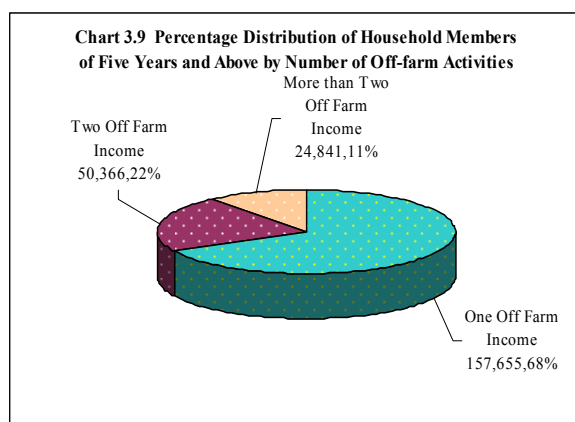


With regard to the heads of agricultural households with primary or secondary education in Mwanza

region, Ukerewe district had the highest percentages (75.7% for primary and 2.4% for secondary). This was followed by Sengerema (61.9% primary and 4.4% secondary), Magu (61.5% primary and 2.9% secondary), Geita (56.7% primary and 2.1% secondary). Ilemela (55.9% primary and 2.7% secondary), Missungwi (53.4%, primary and 3.5% secondary) and Kwimba had the lowest percentage of heads of agricultural households with primary education (50.3%) and secondary education (2.5%)

3.1.6 Off-farm Income

Off-farm income refers to cash generated from non-agricultural activities. This can be either from permanent employment (i.e., government, private sector or other), temporary employment or labourers. It also includes cash generated from working on farms belonging to other farmers. Off-farm income is important amongst agriculture households in Mwanza with 68.5% of households having at least one member with off-farm income. In Mwanza region 157,655 households (67.5%) had only one member aged 5 and above involved in an off-farm income generating activity, 50,366 households



(21.6%) had two members involved in off-farm income generating activities and 24,841 households (10.7%) had more than two members involved in off-farm income generating activities.

The districts with highest percentage of households with off-farm income were Kwimba and Ilemela followed by Magu, Ukerewe, Missungwi, Missungwi, Sengerema and Geita.

The district with the highest percent of agriculture households with more than two members with off-farm income was Kwimba (14.2), Magu (14.1), Sengerema (10.1), other District had very few households with more than two members having off-farm income.

3.2 Land Use

Land area and planted area are different types of area measurements. Land area refers to the physical area of land and is the same regardless of the number of crops planted on the land in one year. Planted area is the total of all areas planted with crops in a year and the areas are summed if there were more than one crop on the same in a year. A number of terms are used in this section which requires defining for clarification as follows:

Land available refers to the area of land that had been allocated to smallholders through customary law, official title or other forms of ownership. Land available does NOT mean the total area of land that is designated as agricultural land in the country; Instead it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused through designated of agricultural land.

Usable land refers to the available land minus the land that cannot be used e.g. bare rock, shallow soils, steep slopes, swamp areas etc. It does however include un-cleared bush, Utilised land refers to the land that was used during the year.

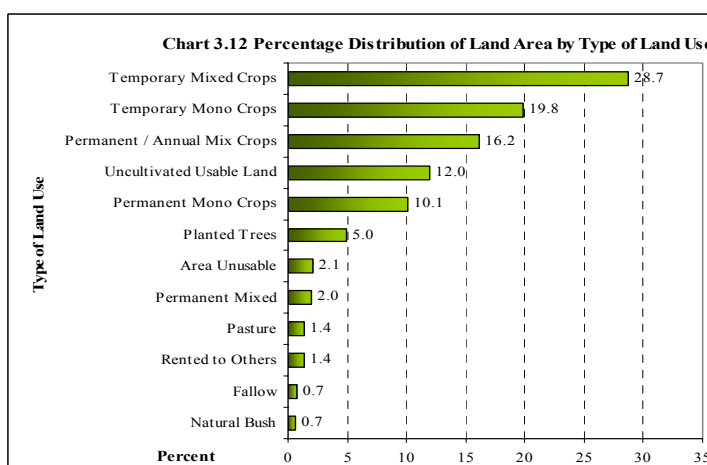
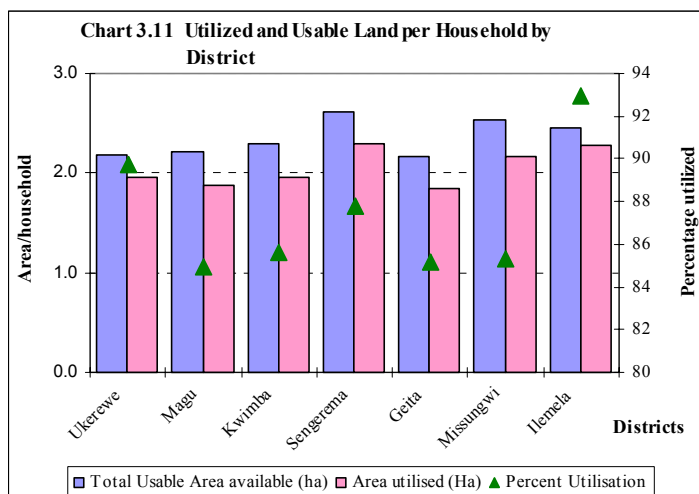
3.2.1 Area of Land Utilised

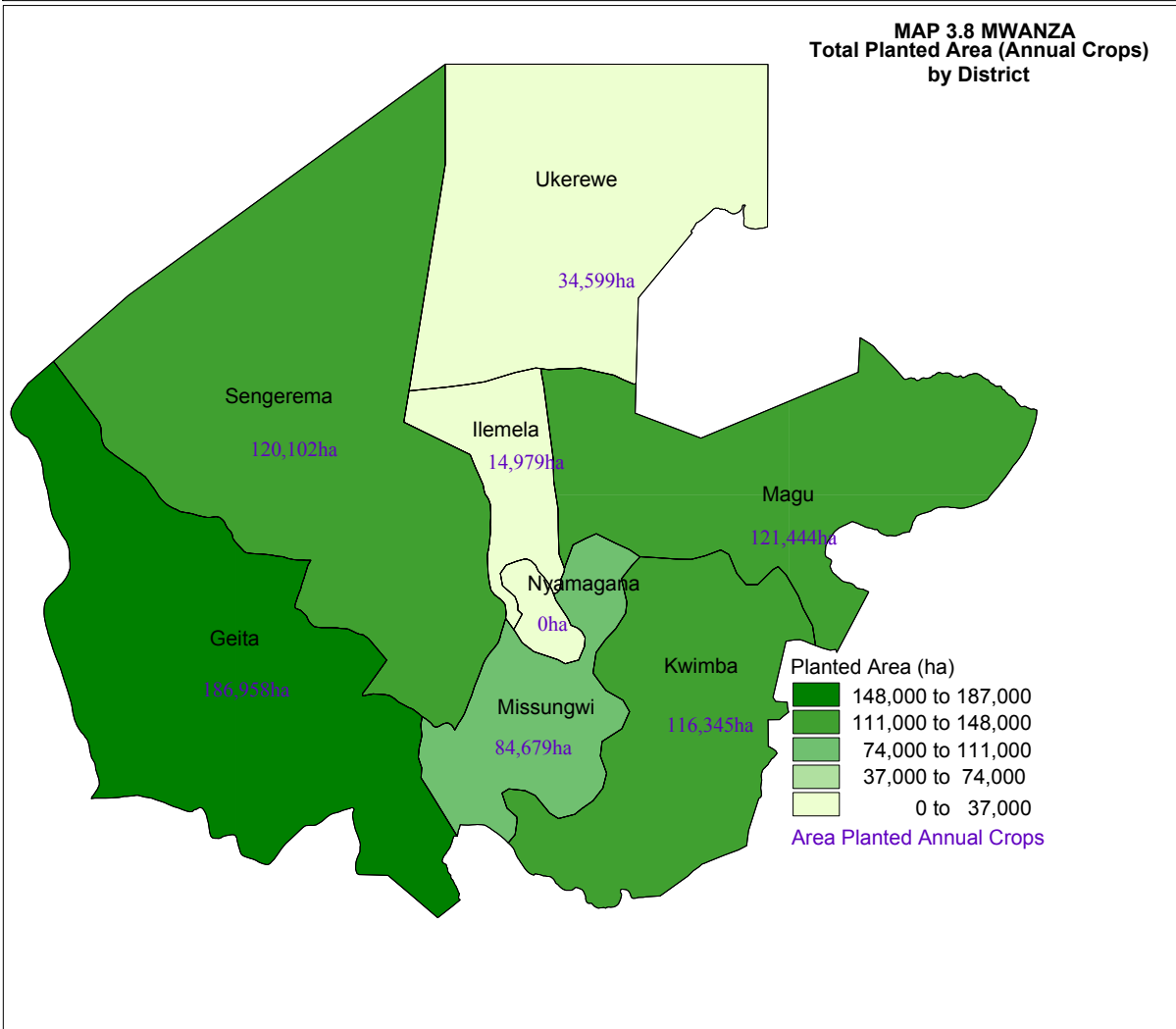
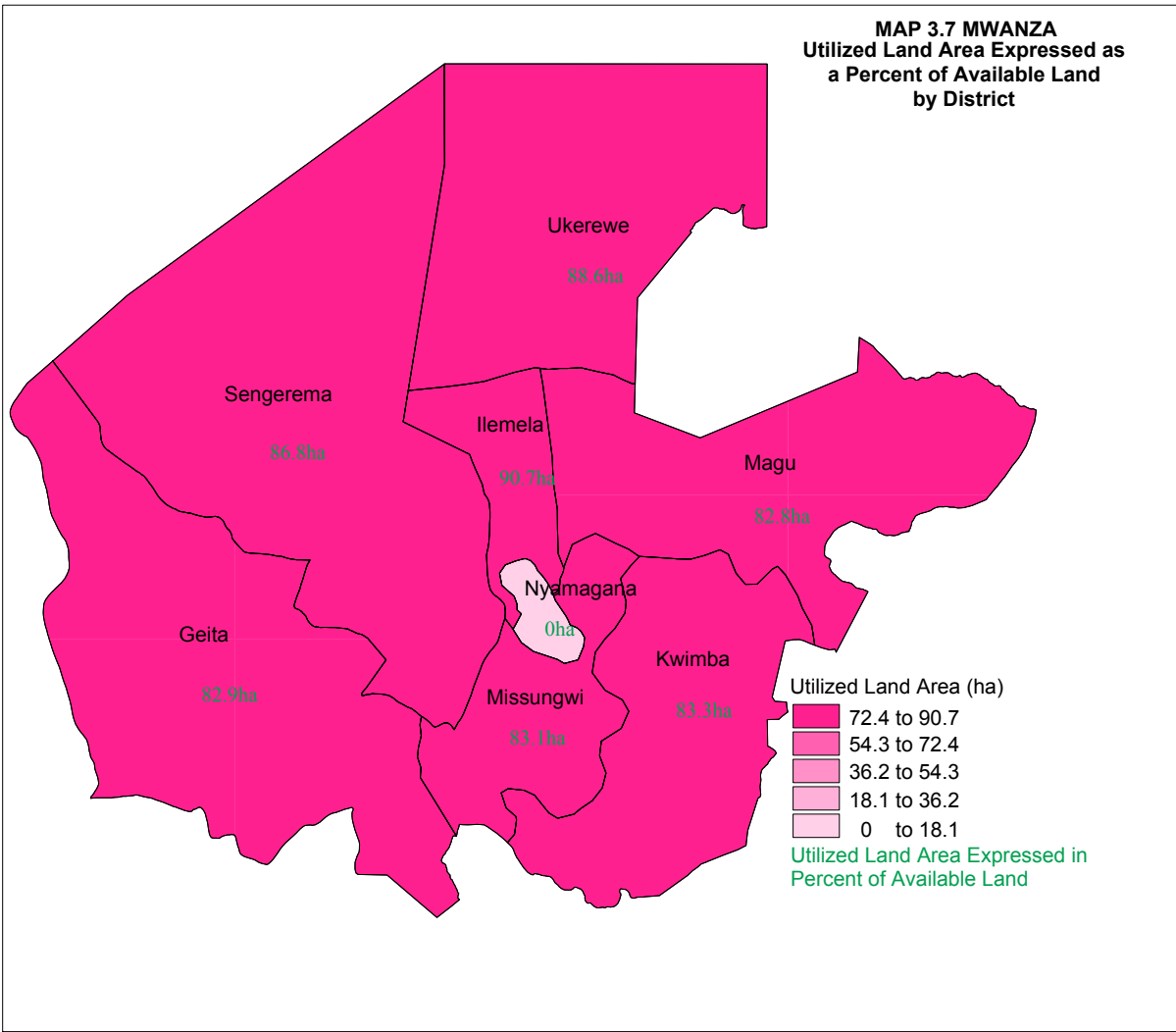
The total area of land available to smallholders was 864,585 ha, and 845,350 excluding area unusable. At Regional level the average land area utilised for agriculture per household was only 2.0 ha.

This figure is equivalent to the national average which was estimated at 2.0 hectares. 81% of the land available to smallholders was utilised. Only 13.5 percent of usable land available to smallholders was not used (Chart 3.11 and Map 3.7).

There were small differences in land utilization per household between districts with Sengerema and Ilemela utilizing 2.3 ha per household.

The smallest land area utilised per household was found in Geita (1.8ha). The percentage utilized of the usable land per household is highest in Ilemela (92.9%) and lowest in Magu, where 85.1% of the total land available to smallholders was utilised and only 14.9% of usable land available to smallholders was not used (Chart 3.11 and Map 3.7).





3.2.2 Types of Land Use

The area of land under temporary mix was 242,740 hectares (28.7% of the total land available to smallholders in Mwanza), followed by temporary mono crop (167,575 ha, 19.8%), permanent/annual mix (136,569 ha, 16.2%), uncultivable usable land (101350 ha, 12.0%), permanent mono crop (85,472 ha, 10.1%), planted trees (42,153 ha, 5.0%), unusable area (7446 ha, 2.1%), (permanent mixed 16520 ha, 2.0%), pasture (11,950 ha, 1.4%), rented to others (11584 ha, 1.4%), fallow (6060 ha, 0.7%) and natural bush (5645 ha, 0.7%).

3 Annual Crops and Vegetable Production

Mwanza region has two rainy seasons, namely the short rainy season (October to December) and the long rainy season (March to May). The quantity of crops produced in both seasons will be used as a base for comparison with the past surveys and censuses.

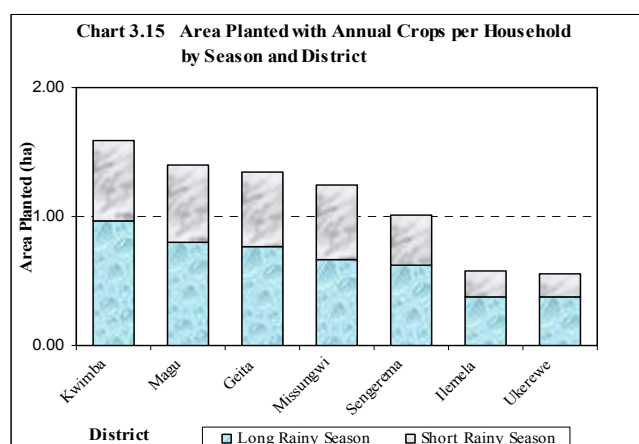
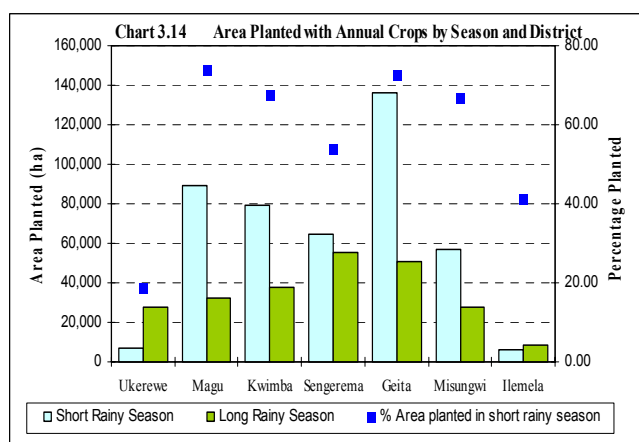
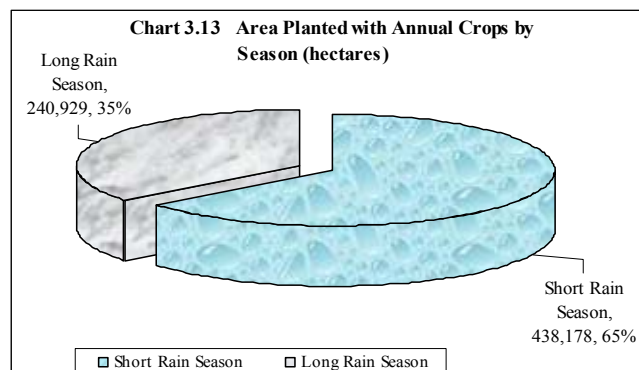
3.3.1 Area Planted

The area planted with annual crops and vegetables was 679,107 hectares out of which 438,178 hectares (65%) were planted during short rainy season and 240,929 hectares (35%) during long rainy season. The average areas planted per household during the short and long rainy seasons was 0.5 and 0.7 ha respectively (Chart 3.13).

The districts with the largest area planted per household (the average of the two seasons) were Kwimba (0.8 ha) followed by Magu and Geita each with (0.7ha), Missungwi (0.6ha), Ukerewe and Ilemela with (0.77 ha). The district with the smallest average area planted was Sengerema (0.5 ha) While in Magu district the average area planted during the short rainy season is higher than that of the long rainy season the reverse is true in the rest of the districts. (Chart 3.14 and Map 3.8).

The planted area occupied by cereals was 315,648 ha, (46.5 %of the total area planted with annuals). This was followed by root and tubers 176,633 hectares, (26.0%), cash crops 86,938 hectares, (12.8%), pulses 77,041 hectares, (11.3%), oil seeds 19,501 hectares, (2.9%), and fruits and vegetables (3,286 hectares (0.5%).

The average area planted per household during the long rainy season in Mwanza region was 0.7 hectares, however, there were large district differences. Kwimba had the largest planted area per household (1.0 ha) followed by Magu (0.8 ha) and Geita and Missungwi both had (0.7 ha.) The smallest planted area per household is in Ilemela (0.4 ha.) In Kwimba the area planted per household in the short rainy season represents 62 percent of the total planted area per household, whereas in Ilemela the corresponding figure is 20 per cent. (Chart 3.15 and Map 3.9).



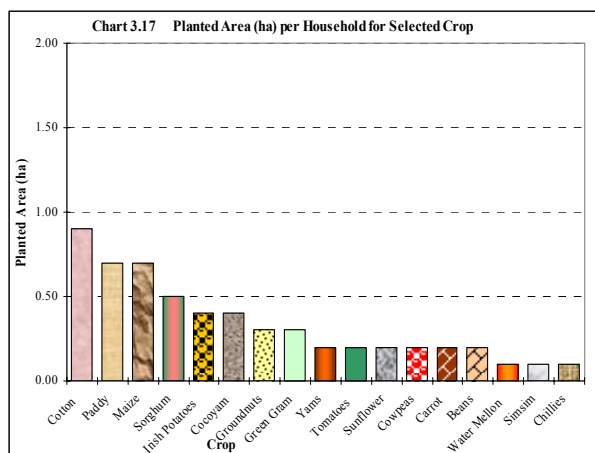
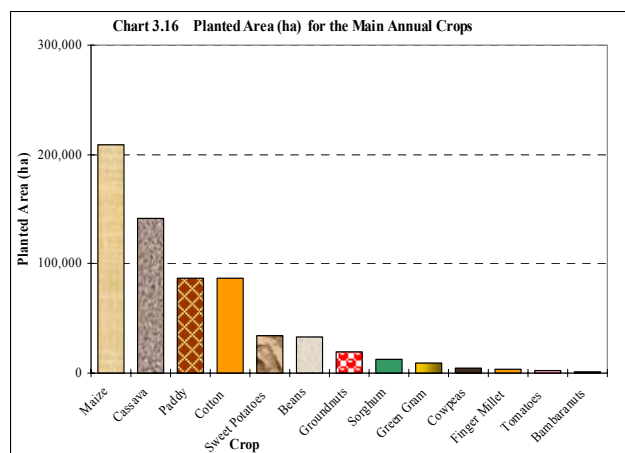
Analysis of the Most Important Crops

Results on crop production are presented in two different sections. The first section compares the importance of all crops regardless of whether they are annual or permanent. The second section contains a more detailed analysis on production based on crop types.

3.3.2 Crop Importance

The area planted with annuals was 679,107 ha. Maize is the dominant annual crop grown in Mwanza region and it had a planted area 208,512 ha (31% of the total area planted with annual crops in the region), followed by cassava with a planted area of 141,223 ha. Other crops in order of their importance (based on area planted) are paddy, cotton, sweet potatoes, beans and groundnuts (Chart 3.16).

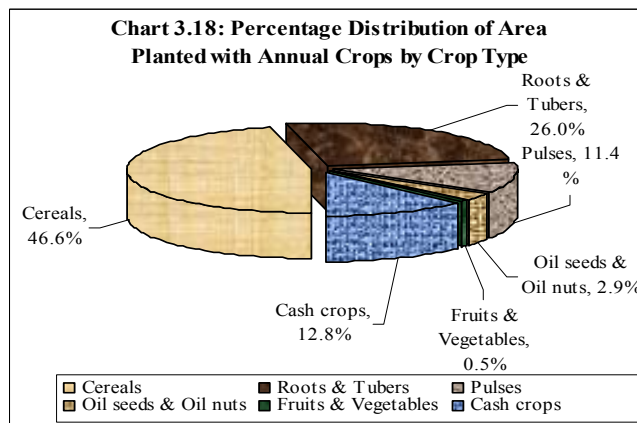
Households that grow cotton, paddy, maize and sorghum have larger planted areas per household than for other crops (Chart 3.17).



3.3.3 Crop Types

Cereals are the main crops grown in Mwanza region. The area planted with cereals was 315,648 ha (46.5% of the total area planted with annual crops), followed by root & tubes with 176,633 ha (26.0%), cash crop 86,938 ha (12.8%), Pulses 77,101 ha (11.3%) and oil seeds 19,501 ha (2.9%). Fruit and Vegetables had got the least planted area of about 3,286 ha (0.5%), (Chart 3.17).

Cereals and root and tubers are the dominant crops and other crop types are of minor importance in comparison. There is little difference in the proportions of the different crop types grown between seasons and because short rainy season production was very small compared to long rainy season it is inappropriate to make detailed comparisons between the two seasons (Chart 3.18).



3.3.4 Cereal Crop Production

The total production of cereals was 244,466 tonnes. Maize was the dominant cereal crop at 150,804 tonnes which was 61.7 percent of total cereal crops produced, followed by paddy 81,805 tonnes (33.4%), sorghum 8,271 tonnes (3.4%), finger millet 2393 (0.9%) and bulrush millet 1192 tonnes (0.5%), (Map 3.10).

Table 3.2: Area, Production and Yield of Cereal Crops by Season

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Maize	195,556	142,605	729	12,956	8,199	633	208,512	150,804	723
Paddy	51,928	42,906	826	35,303	38,899	1,102	87,231	81,805	938
Sorghum	10,556	6,698	635	2,401	1,573	655	12,957	8,271	638
Finger Millet	2,468	1,202	487	908	1,191	1,312	3,376	2,393	709
Bulrush Millet	1690	509	300	1982	684	363	3572	1193	334
Total	262,198	193,920		53,450	50,546		315,648	244,466	

The total area planted with cereals was 315,648 ha out of which 262,198 ha (83.1%) were planted in the short rainy season and 51,450 ha (16.9%) were planted during the long rainy season. The long rainy season accounted for 21 percent of the total cereals produced in both seasons. The area planted with maize during the short rainy season was 75% of the total area planted with cereals in that season followed by paddy (20%) and Sorghum (4%) (Table 3.2).

The area planted with maize was dominant and it represented 66.1% of the total area planted with cereal crops, then followed by paddy (27.6%), sorghum (4.1%), finger millet and bulrush millet with (1.1%), each.

The yield of paddy was 938 kg/ha, followed by maize (723 kg/ha), finger millet (709 kg/ha) and sorghum (638 kg/ha) and bulrush millet (334 kg/ha).

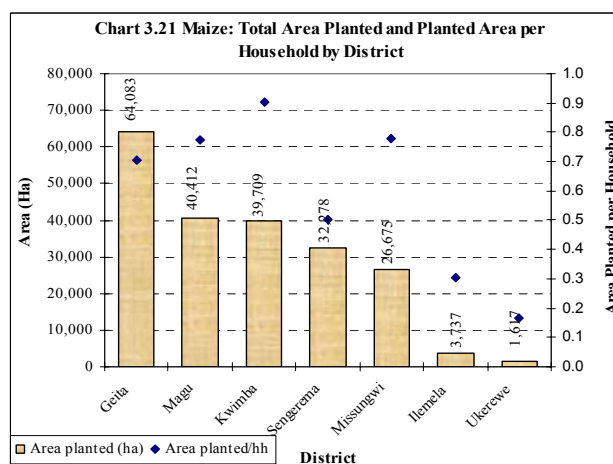
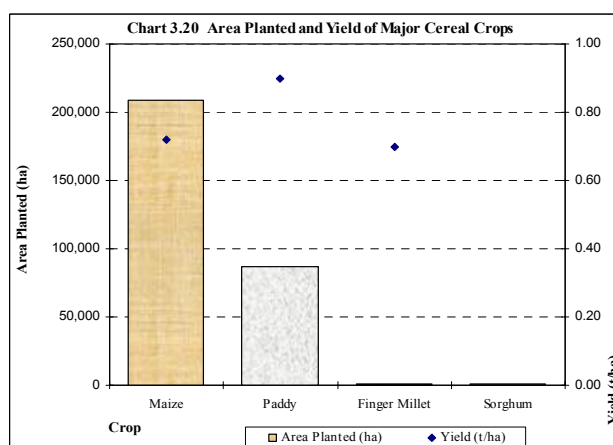
Maize

The number of households growing maize in Mwanza region during the long rainy season was 18,906 (23.9% of the total annual crops growing households in the region during the long rainy season). The total production of maize was 150,804 tonnes from a planted area of 208,512 hectares resulting in a yield of 0.7 t/ha.

Geita had the highest area planted with maize (64,083ha), followed by Magu and Kwimba. Ilemela and Ukerewe only had a small planted area of maize (Chart 3.21).

The average area planted with maize per household was

0.7 hectares; however it ranged from 0.2 hectares in Ukerewe district to 0.9 hectares in Kwimba district. Geita district had the largest area of maize (64,083 ha) followed by Magu (40,412 ha), Kwimba (39,709 ha), Sengerema (32,278 ha), Missungwi (26,675 ha), Ilemela (3,737 ha) and Ukerewe(1,617 ha).(Chart 3.21 and Map 3.11 and 3.12)



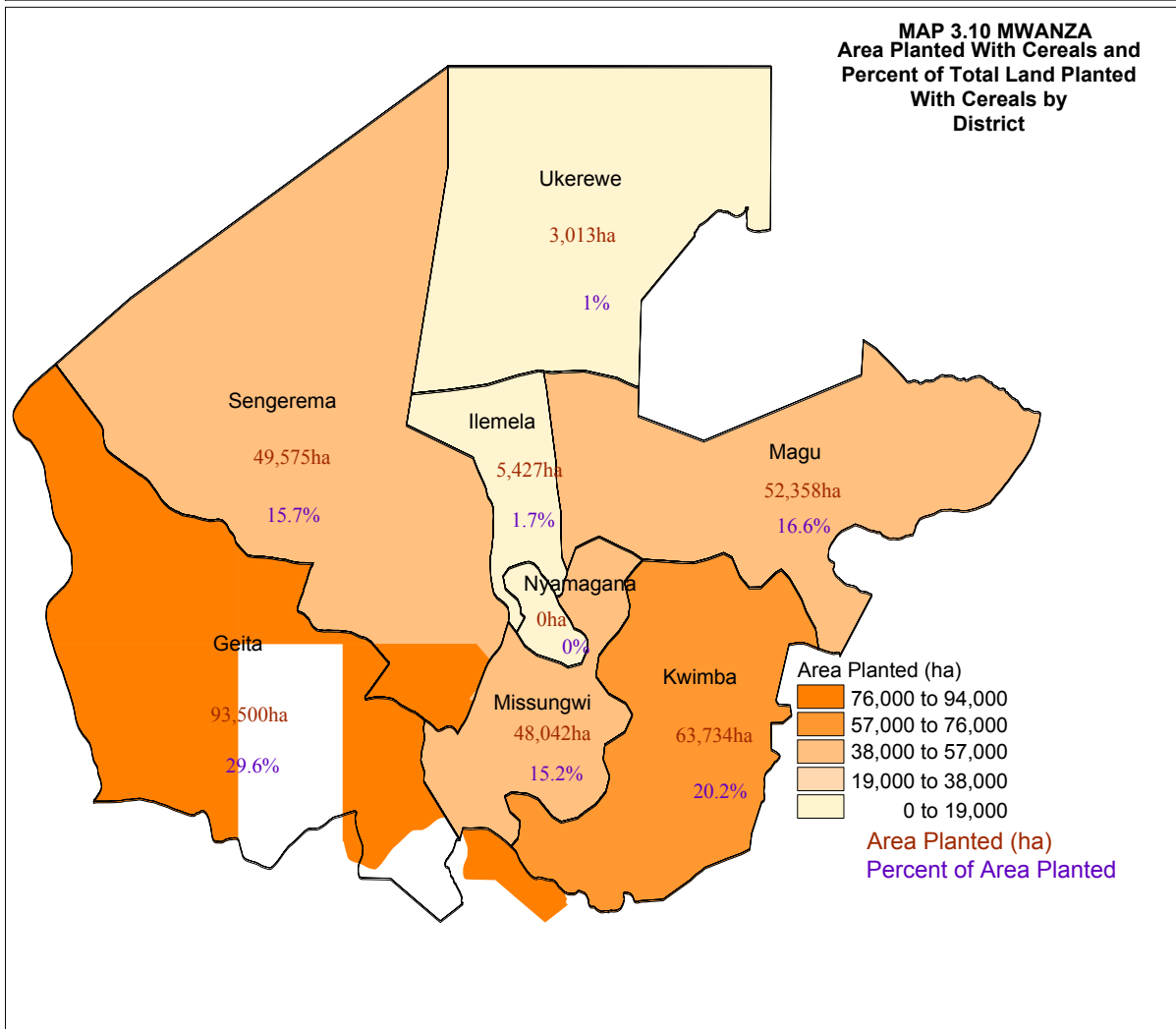
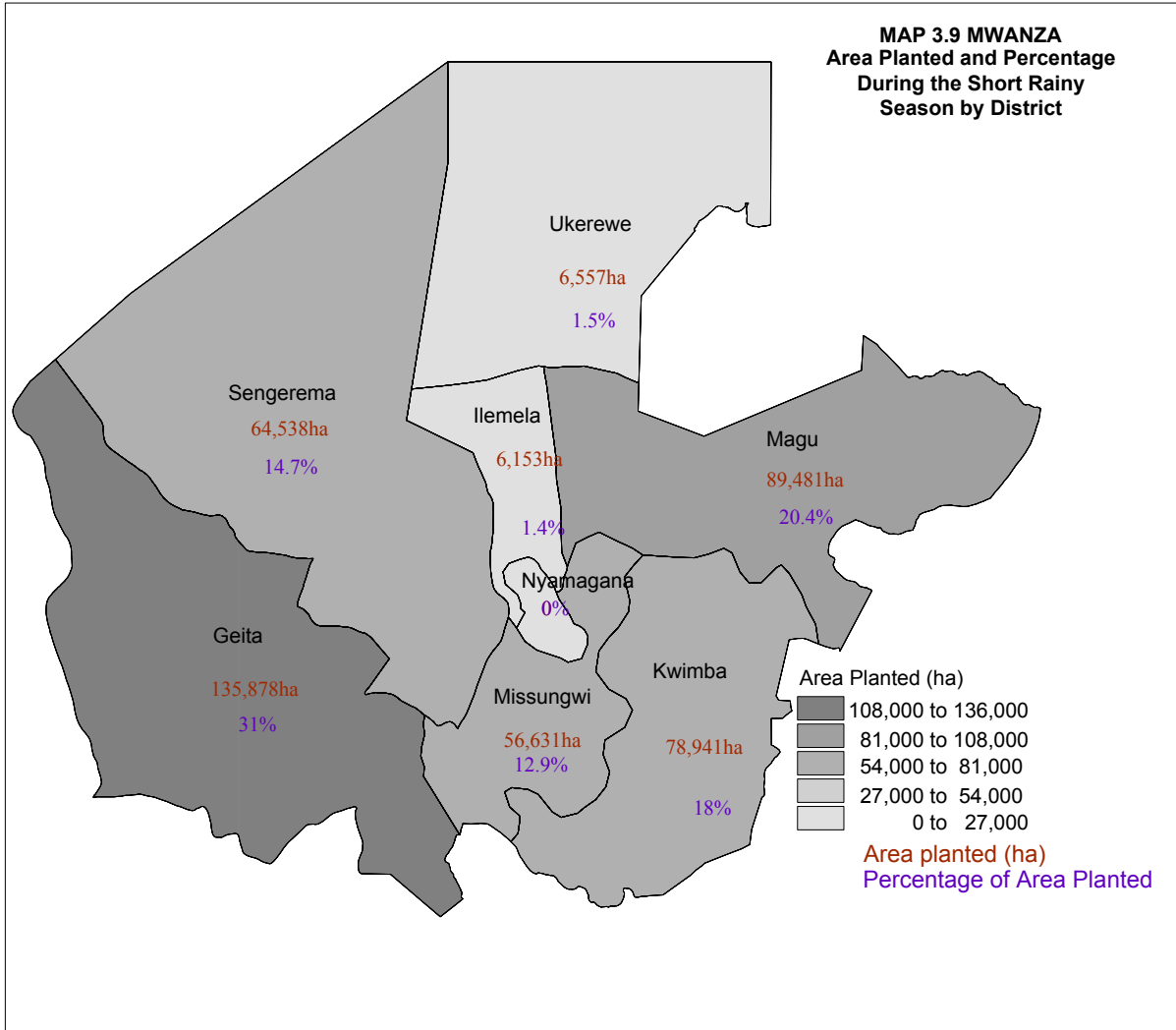
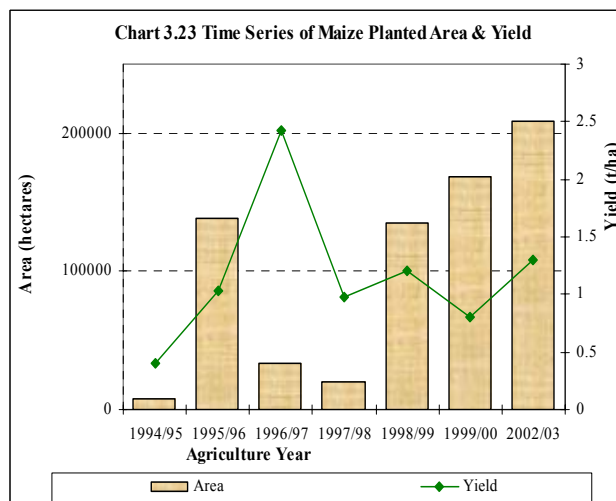
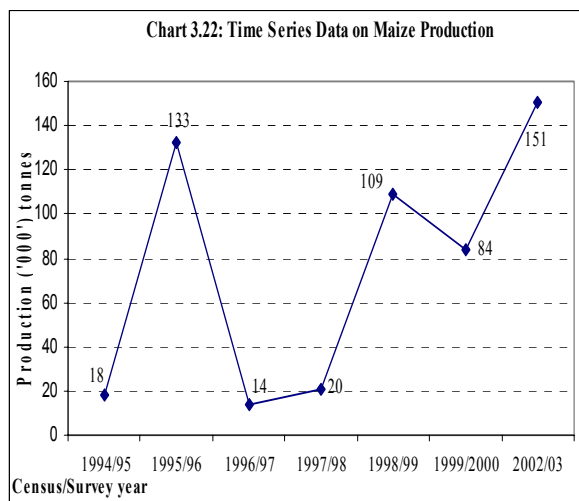
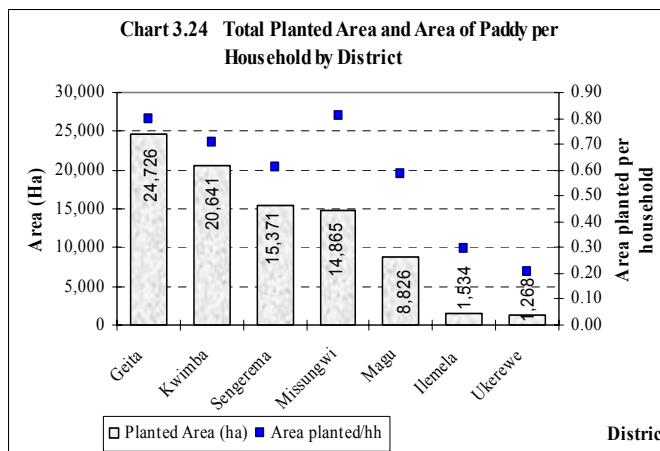


Chart 3.22 indicates maize production trend (in thousand metric tonnes) for the combined long and short rainy seasons. There was a sharp increase in maize production between the period of 1998 to 1999 and 2000 to 2002. Show that, the yield of maize decreased sharply from 1996/97 to 1997/98 and remained constant at this lower level over the period 1997 to 2003 this shows that the increase in production was due to an increase in planted area and not to an increase in yield (Charts 3.22 and Map 3.12).

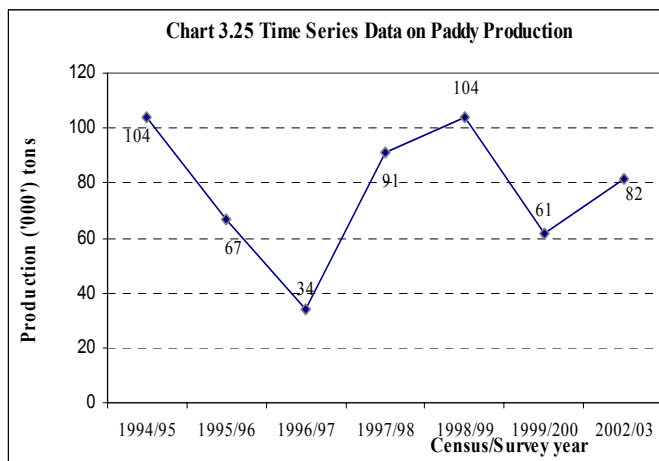


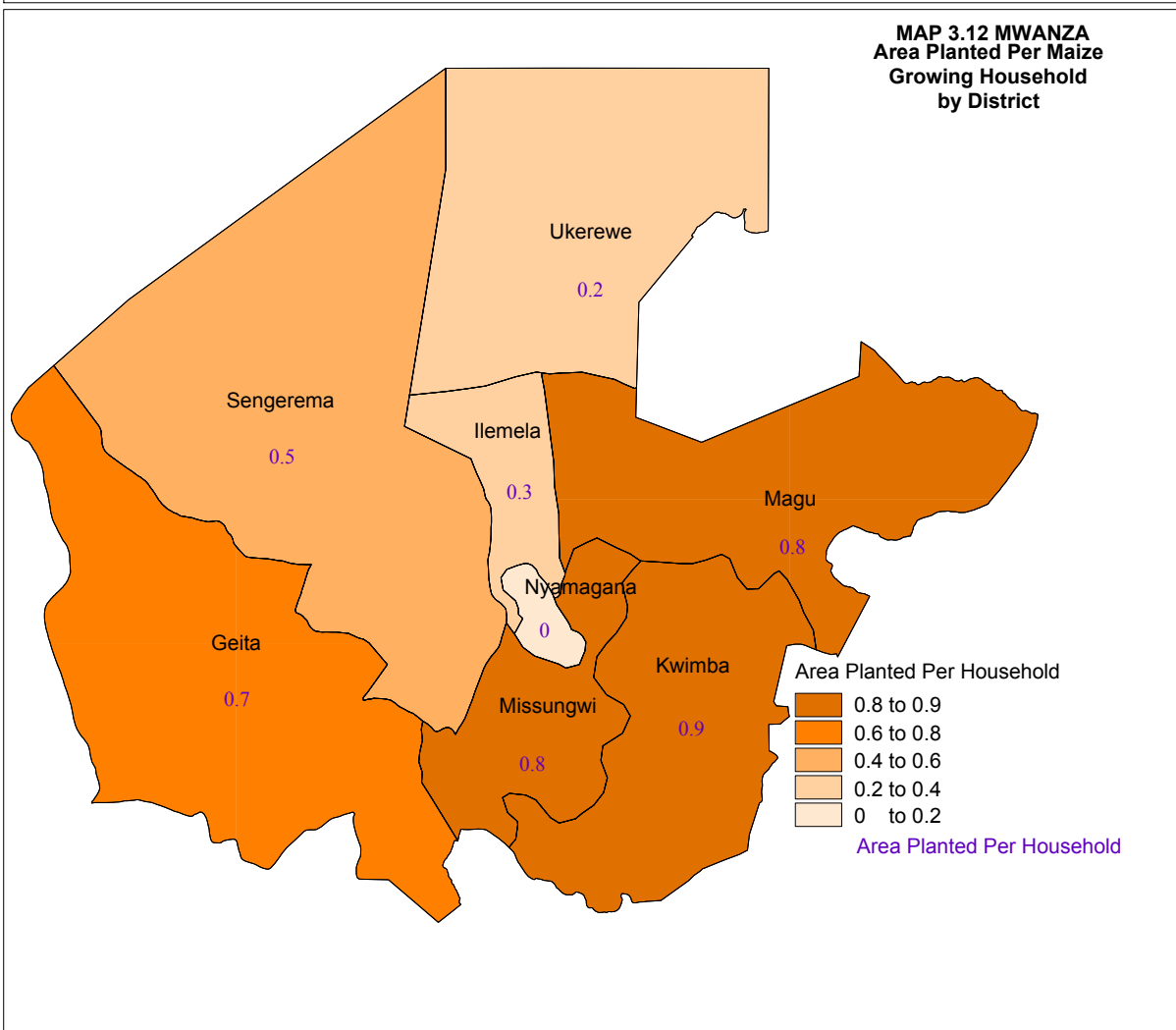
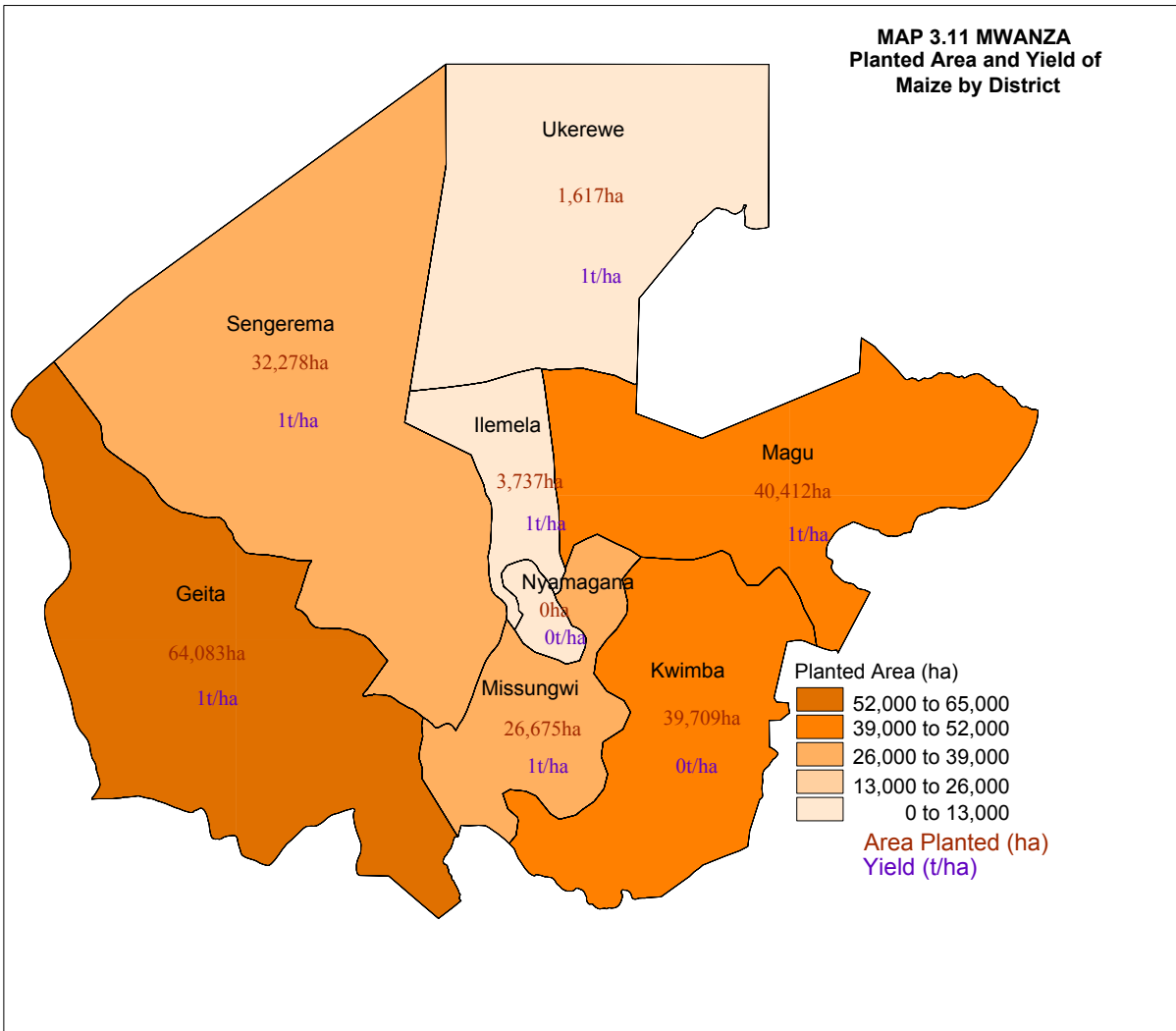
Paddy

Paddy was the second most important cereal crop in the region in terms of planted area. The number of households that grew paddy in Mwanza region during the short and long season were 77,984 and 52,338 respectively. These represent 24.2% and 43.7% of the total annual crop growing households in the respective seasons. The total production of paddy was 81,805 tonnes from a planted area of hectare 87,231 resulting in a yield of 0.9 t/ha. The district with the largest area planted with paddy was Missungwi (24,726 ha) followed by Kwimba (20,641 ha), Sengerema (15,371 ha), Itemela (14,865 ha), Magu (8,826 ha), Ukerewe (1534 ha) and Geita (1,268 ha) (Chart 3.24 and Map 3.13 and 3.14).

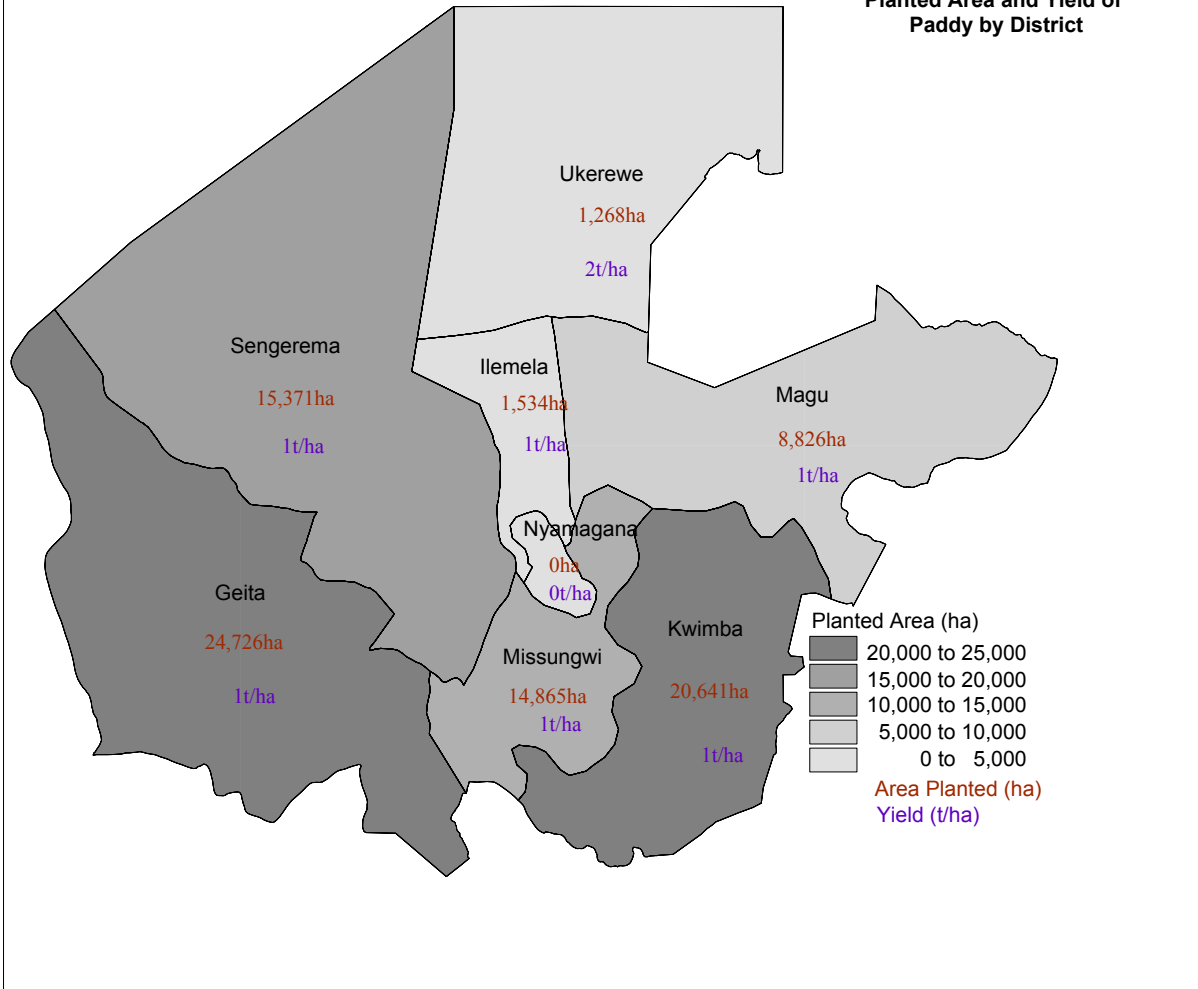


The production of paddy since 1995 has fluctuated erratically. The production rose from 34,000 tonnes in 1996/97 to 104,000 tonnes in 1998/99 after which it dropped to 61,000 tonnes in 2000. Charts 3.26 shows that, the yield of paddy dropped between 1995/96 and 1997/98, after which it started

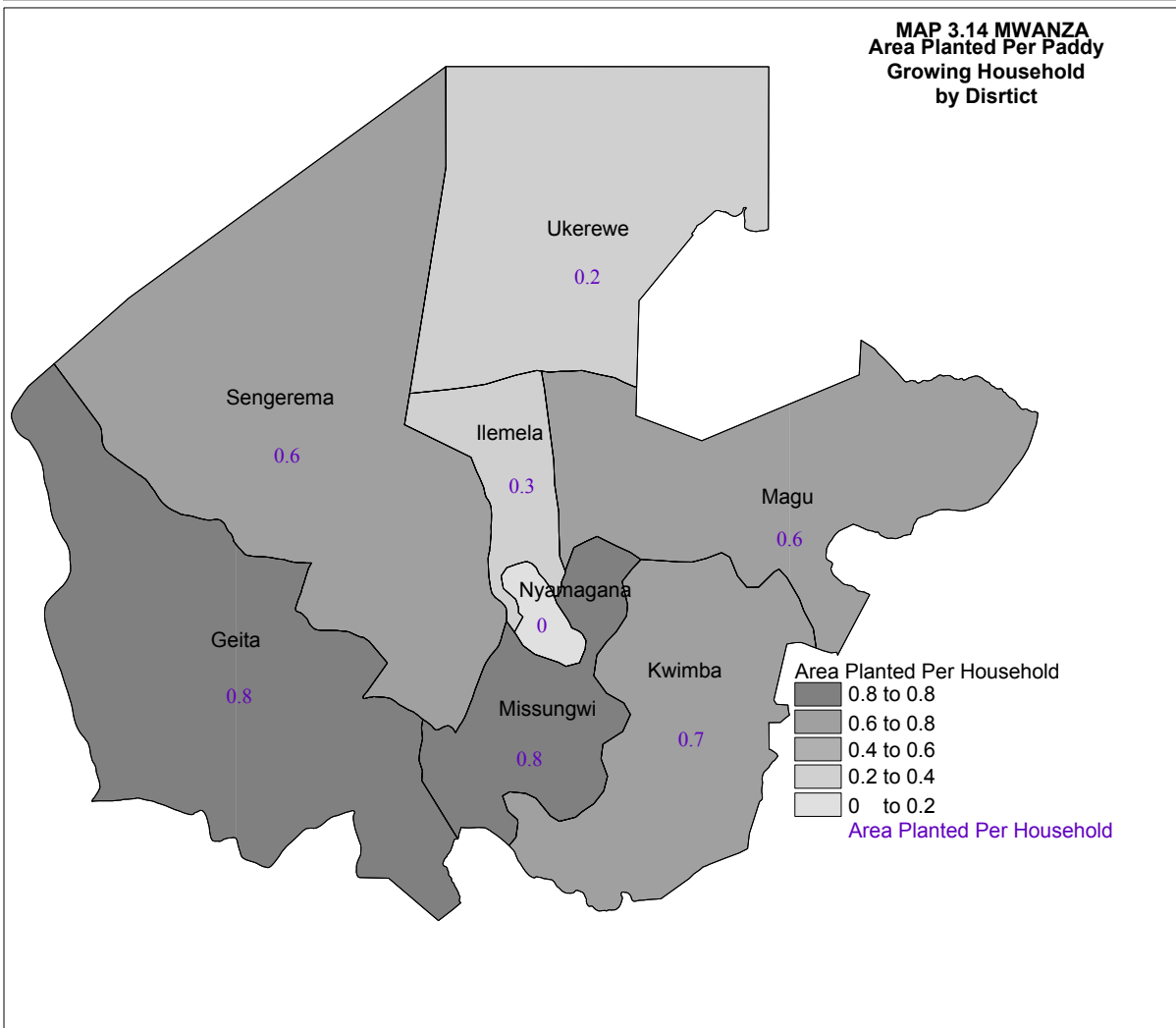




**MAP 3.13 MWANZA
Planted Area and Yield of
Paddy by District**



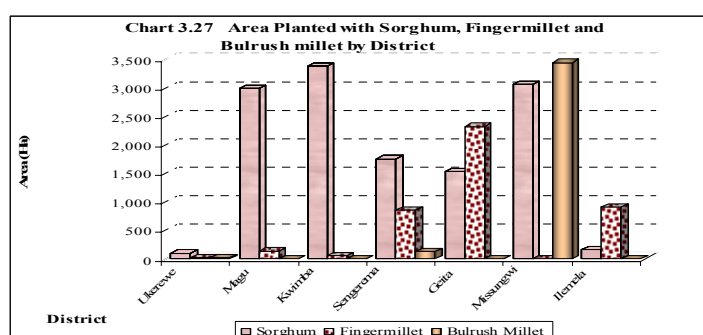
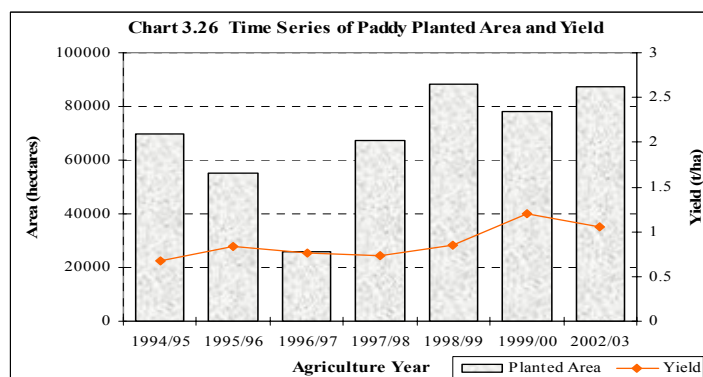
**MAP 3.14 MWANZA
Area Planted Per Paddy
Growing Household
by District**



increasing up to 1999/00 years, then declined a sharply over the period up to 2002/03. The Yield of paddy has increased by around 0.5 t/ha, however it is the change in planted area that determines the fluctuation in production. And increases in production are a result of increases in planted area and not due to a greater productivity.

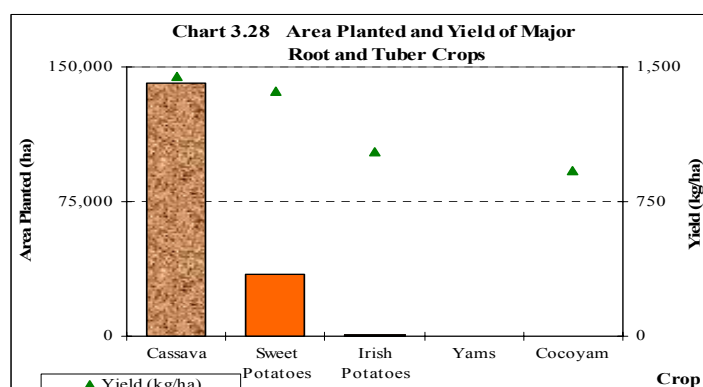
Other Cereals

In terms of area planted in other Cereals production, Bulrush millet was the least important crop compared to sorghum and finger millet in the region. There was no bulrush millet production reported in Magu, Kwimba, Geita and Itemela districts. (Chart 3.27 and Map 3.15).



3.3.5 Roots and Tuber Crops Production

The total production of roots and tubers was 252,312 tonnes. Cassava production was higher than any other root and tuber crop in the region with a total production of 204,303 tonnes representing 81.0 percent of the total root and tuber crops production. This was followed by Sweet potatoes with 47,091 tonnes (18.7%), the remaining other crops contribute less than 1% of the total production of roots and tubers.



The area planted with cassava was larger than any other root and tuber crops (80.0% of the total area planted with roots and tubers), followed by sweet potatoes (19.7%), and the remaining roots

Table 3.3: Area Planted and Quantity Harvested by Season and Type of Root and tuber Crop

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Cassava	1,443	2,238	1,551	139,780	202,065	1,446	141,223	204,303	1,447
Sweet Potatoes	23,491	31,770	1,352	11,227	15,321	1,365	34,718	47,091	1,356
Irish Potatoes	304	319	1,049	83	78	940	387	397	1,026
Yams	241	460	1,909	0	0	0	241	460	1,909
Cocoyam	0	0	0	66	61	924	66	61	924
TOTAL	25,479	34,787		151,156	217,525		176,635	252,312	

and tubers had less than (1%) **Note: Cassava is produced in both the long and short rainy season. However, it was not possible to separate cassava production in the different growing seasons as the growth period spans both seasons and even over a year in certain varieties. Because of this, cassava has been combined and is reported mainly under the long rainy season.**

It is difficult to determine the total planted area and production for the short and long rainy seasons for roots and tubers as the total production of cassava has been reported under the long rainy season. However, excluding cassava, 3.7 percent of the area planted with roots and tubers was during the short rainy season with sweet potatoes having 3.4 percent of its production in the short rainy season. There was no production of cocoyams during the short rainy season.

There was a significant increase in area planted with cassava and sweet potatoes from 1994/95 to 2002/03. The area for cocoyams and yams remained more or less constant.

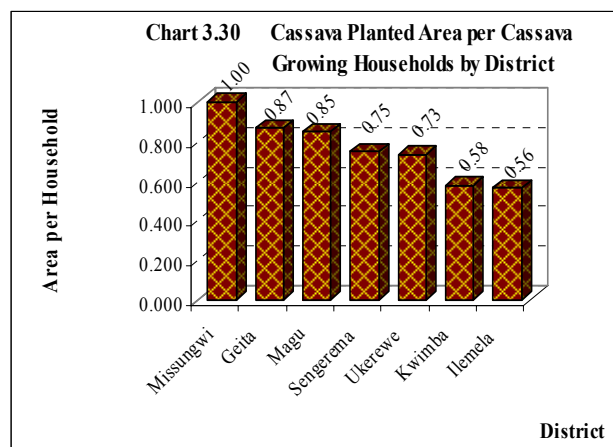
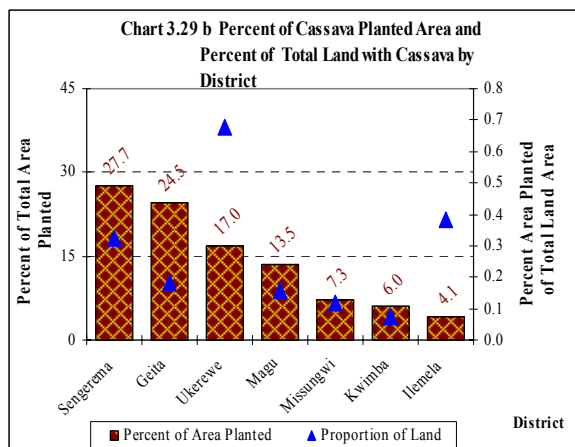
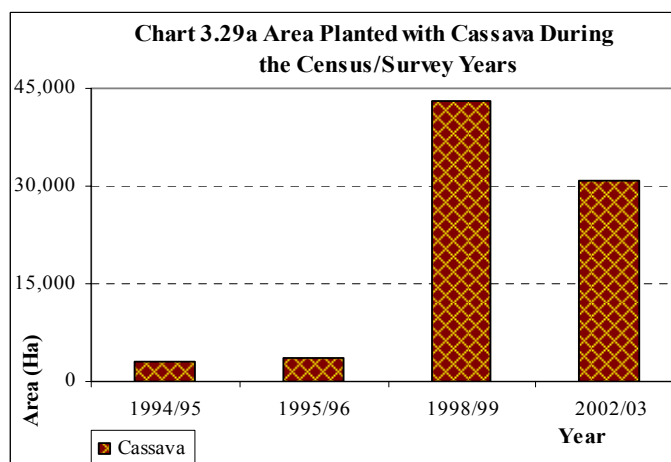
Cassava

The number of households growing cassava in the region was 192,722. This represents 57 percent of the total crop growing households in the region. The total production of cassava during the census year was 204,303 tonnes from a planted area of 141,223 hectares resulting in a yield of 1.4t/ha.

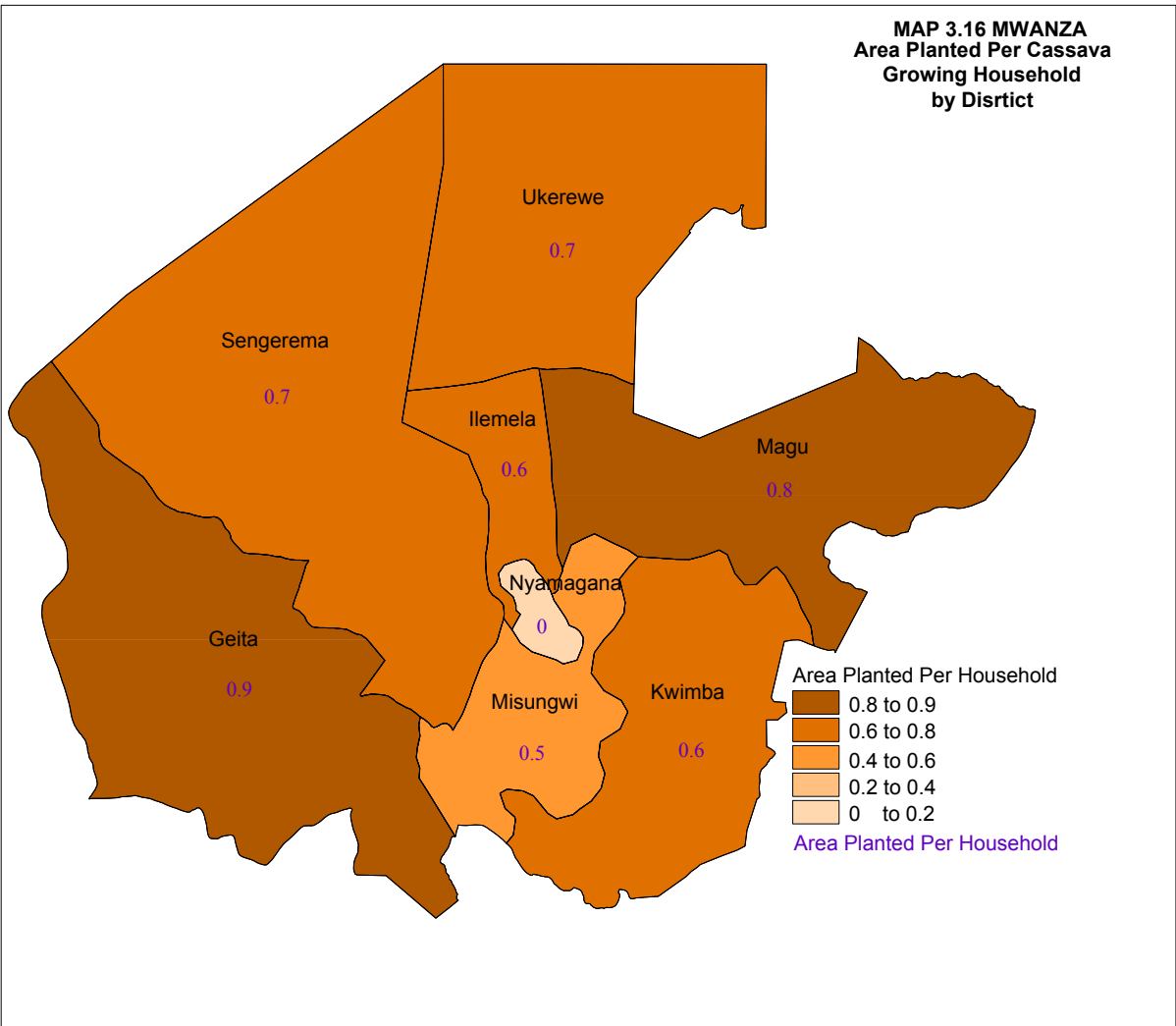
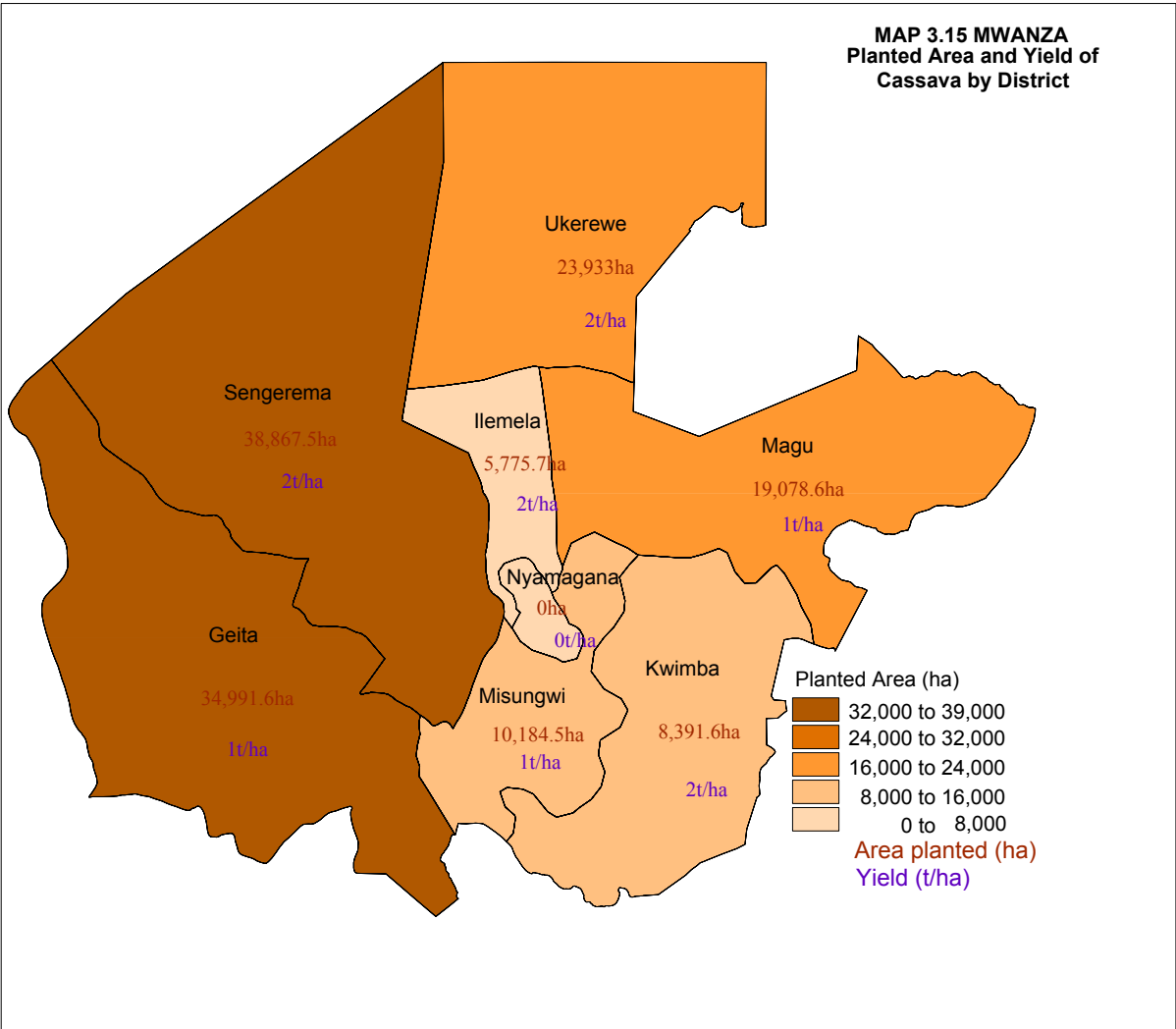
Previous censuses and surveys indicate that the area planted with cassava increased over the period 1995

to 1999 (Chart 3.29a). The area planted with cassava accounted for 21 percent of the total area planted with annual crops and vegetables in the census year.

Sengerema district had the largest planted area of cassava (38,868 ha, 27.5% of cassava planted area in the region), followed by Geita (34,992 ha, 24.8%), Ukerewe (23,933 ha, 16.9%), Magu (19,079 ha, 13.5%), Missungwi (10,185 ha, 7.2%), Kwimba (8,390 ha, 5.9%) and Ilemela (5,776 ha, 4.1%) (Chart 3.29 b and Map 3.15 and 3.16).



The average cassava planted area per cassava growing household was 0.7 hectares. However, there were large district variations. The area planted per cassava growing household was greatest in Missungwi (1.00 ha). This was followed by Geita (0.87 ha), Magu (0.85 ha), Sengerema (0.75 ha), Ukerewe (0.73 ha), Kwimba (0.58 ha) and Ilemela (0.56 ha) (Chart 3.30).

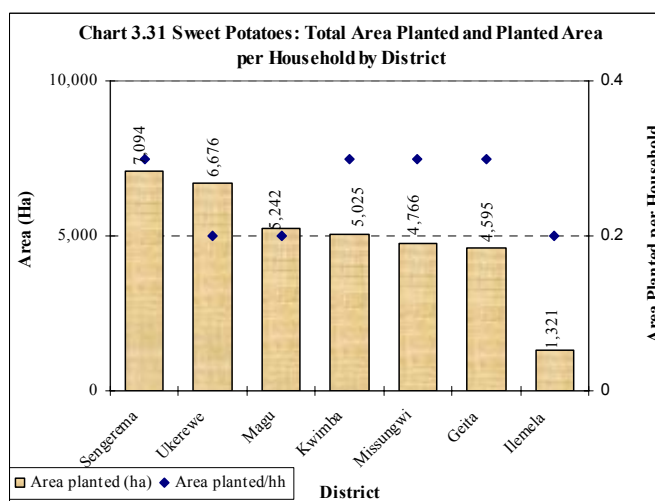


Sweet Potatoes

The number of households growing sweet potatoes in Mwanza region was 142,010. This was 42% of the total root and tuber crop growing households during both seasons. The total production of sweet potatoes during the census year was 47,091 tonnes from a planted area of 34,718 hectares resulting in a yield of 1.3t/ha.

Sengerema District has the largest planted area of Sweet potatoes (7,094 ha, 20.4%), followed by Kerewe (6676 ha, 19.2%), Magu (5,42 ha 15.1%) Kwimba (5025ha 14.5%), Missungwi (4766 ha, 13.7%), Geita (4,595 ha, 13.2%) and Ilemela (1,321 ha, 3.8%). (Chart 3.31 and Map 3.17 and Map 3.18).

Other root and tuber crops are of minor importance in terms of area planted compared to cassava and Sweet potatoes.

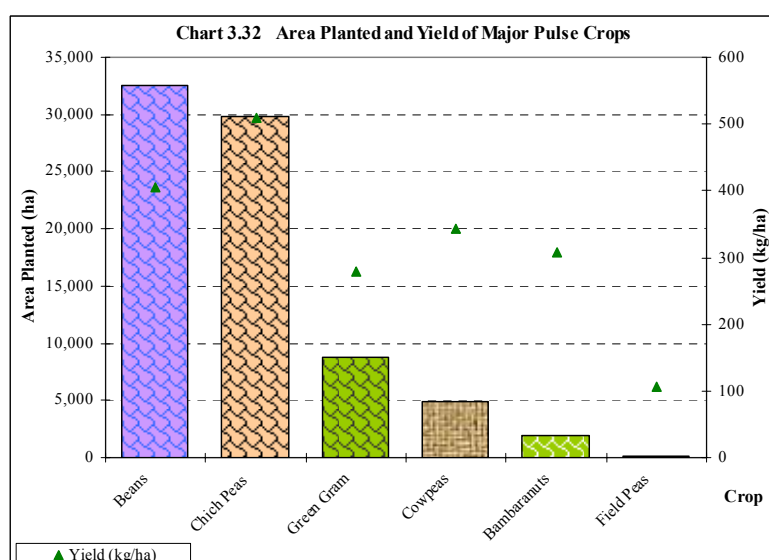


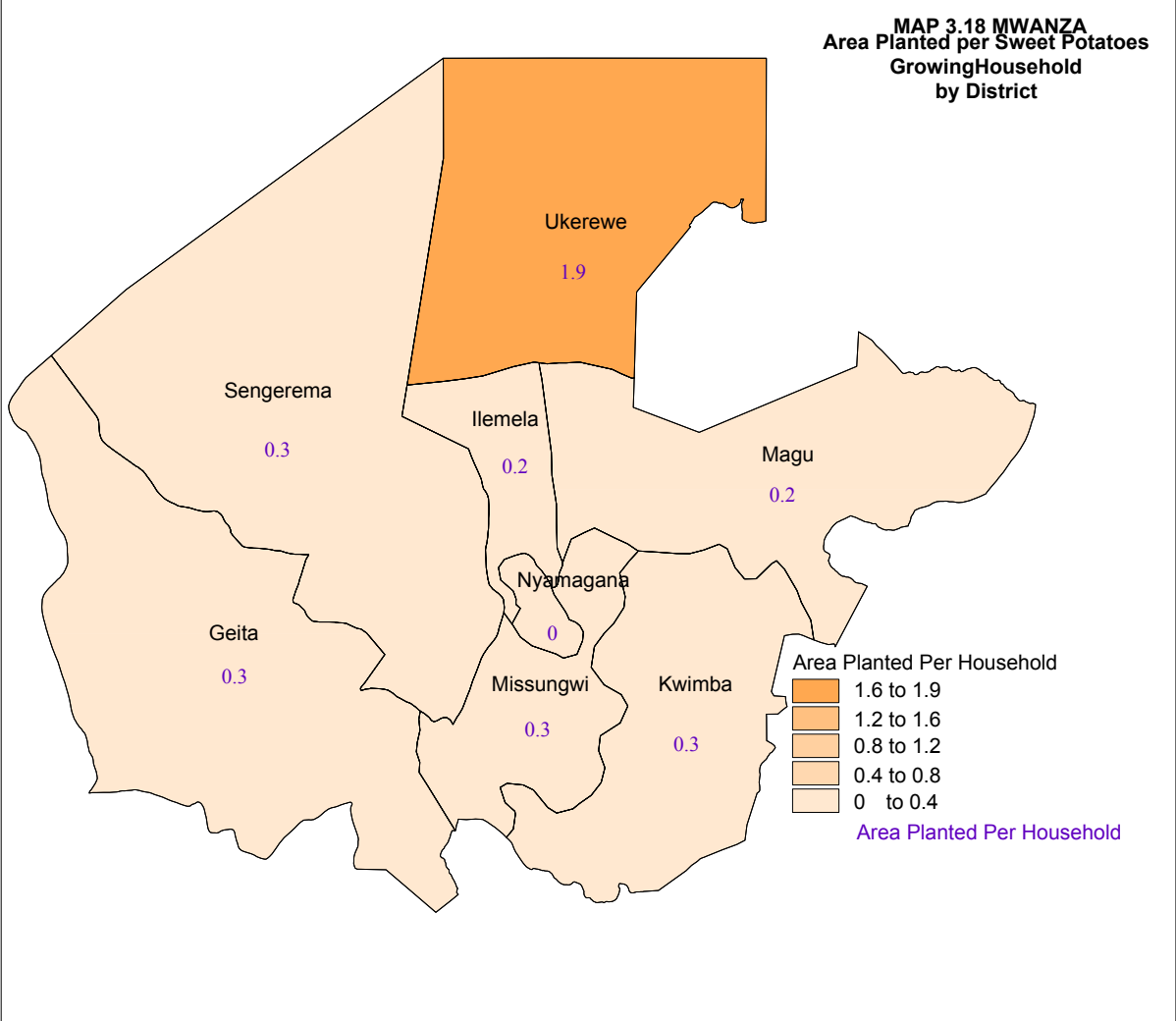
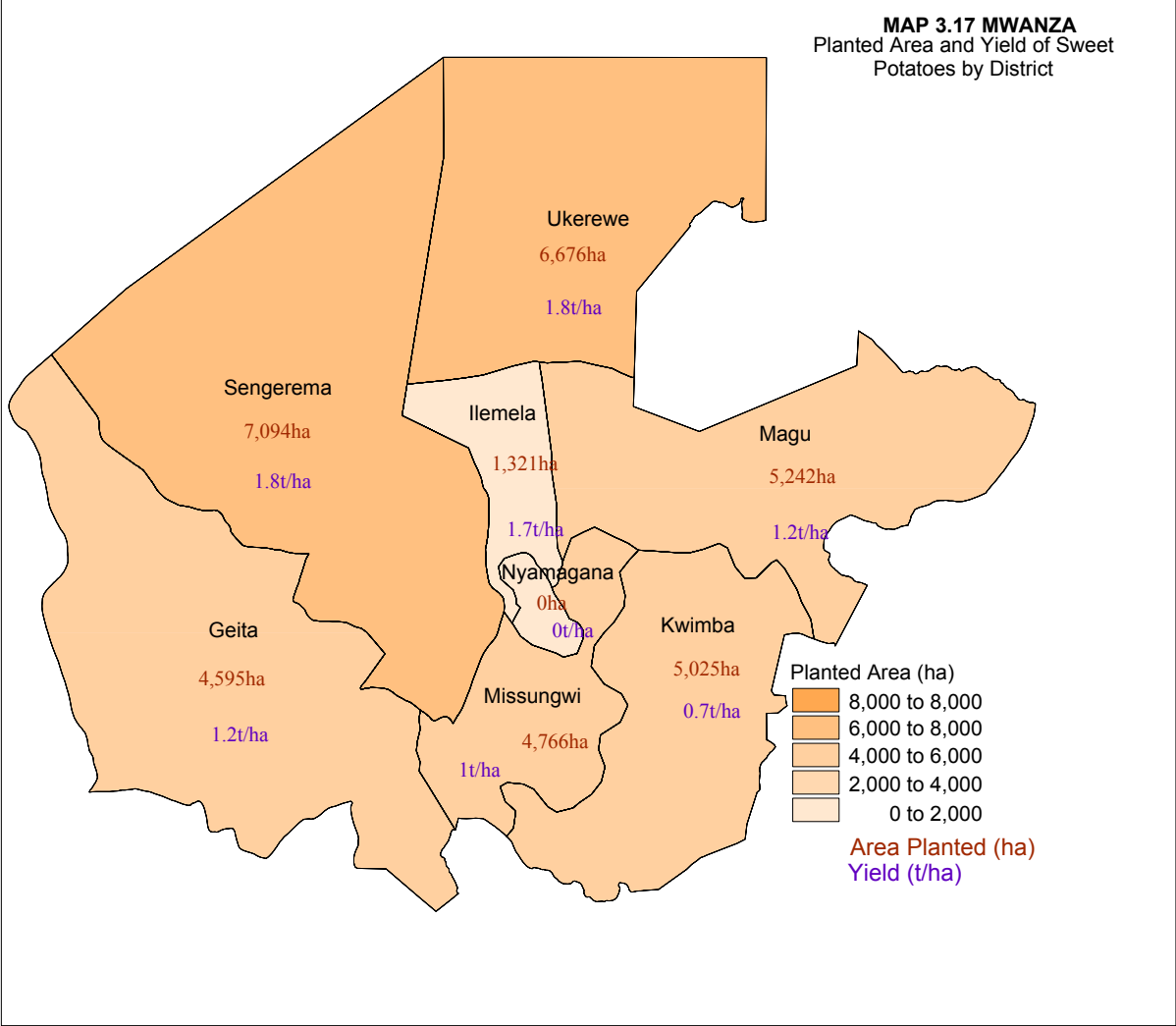
3.3.6 Pulse Crops Production: Table 3.4. Area Quantity Harvested and Yields of Pulses by Season

The total area planted with pulses was 77,968 hectares out of which 32,544 ha were planted with beans (42.2 percent of the total area planted with pulses), followed by chick peas 29,895 ha, (38.3%), green gram 8,728 ha, (11.3%), cow peas 4,845 ha, (6.3%), bambara nuts 559 ha, (1.2%) and field peas 131 ha (0.2%). Mung beans was not cultivated in the region (Chart 3.32).

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Beans	30,865	12,575	407	1,679	642	382	32,544	13,217	406
Cowpeas	4,378	1,509	345	467	149	319	4,845	1,658	342
Green Gram	8,443	2,362	280	285	71	249	8,728	2,433	279
Chick Peas	157	142	904	29,738	15,090	507	29,895	15,232	510
Bambaranuts	769	414	538	190	64	337	959	478	498
Field Peas	131	14	107	0	0	0	131	14	107
TOTAL	44,612	17,002		33,356	16,142		77,101	33,144	

The area planted with pulses in the short rainy season was 44,743 ha which represents 58.0 percent of total area planted with pulses during the year. Chick peas was the most dominant pulse crop during long rainy season with 29,738 ha (91.9 % of the total area planted with pulses in that particular season), followed by beans 1,679 ha, (5.2%), cow peas 467 ha, (1.4%), green grams 285 ha (0.9%) and bambaranuts 190 ha (0.6%). On the other hand beans were the most important pulse crop grown in the long rainy season with a planted area of 30,865ha and a production of 12,575 tonnes.

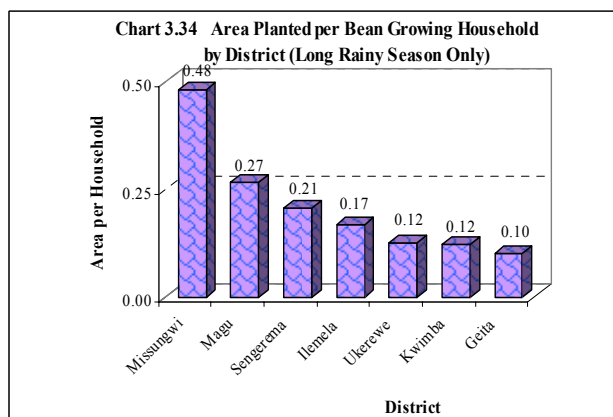
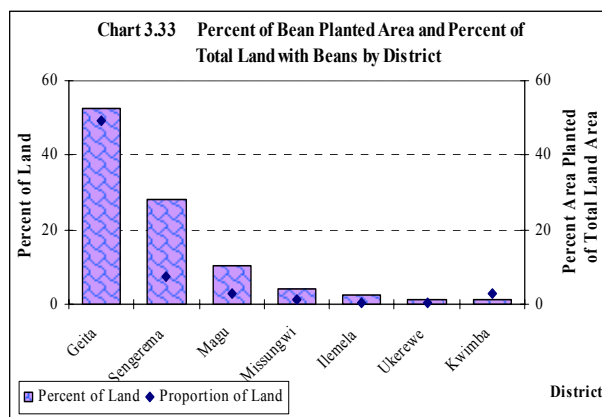




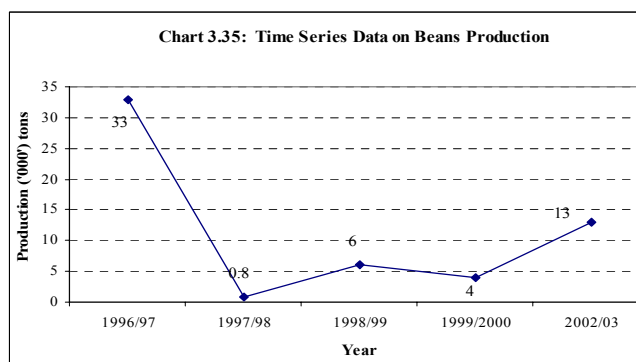
The total production of pulses was 33,032 tonnes. Beans Chick peas accounts for most production at 15,232 tonnes (41.1 percent of total pulse production). This was followed by beans (13,217t, 40.0%), green gram (2,433t, 7.3%), cow peas (1,658t, 5.0%), bambaranuts (478t, 1.4%) and field peas (14t, 0%). (Table 3.4).

Beans

Beans dominate the production of pulse crops in the region. The number of households growing beans in Mwanza region was 131,803. The total production of beans in the region was 13,217 tonnes from a planted area of 32,544 hectares resulting in a yield of 0.4 t/ha.

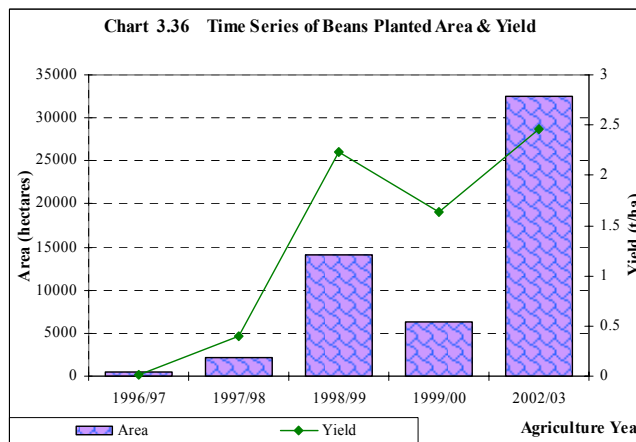


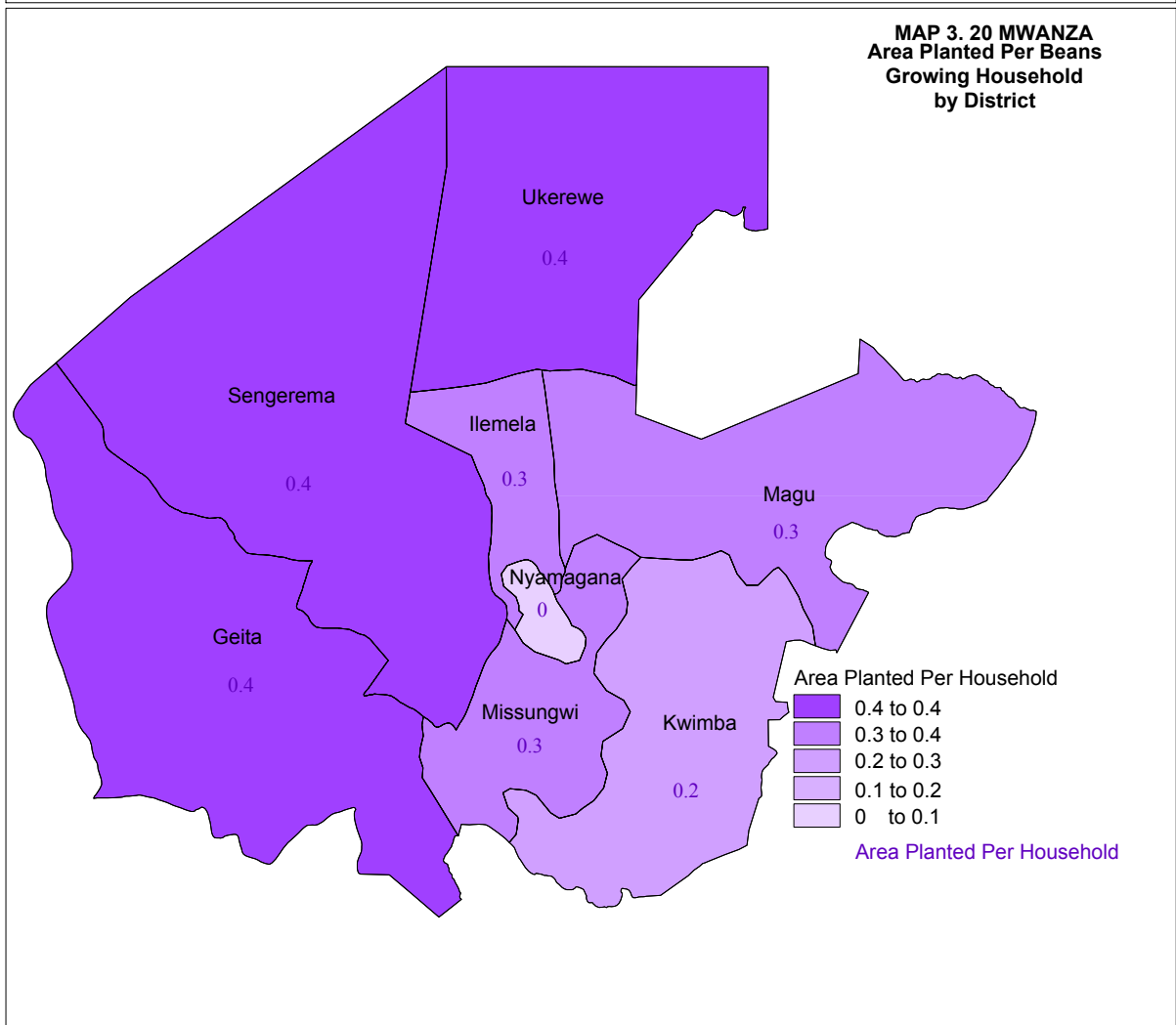
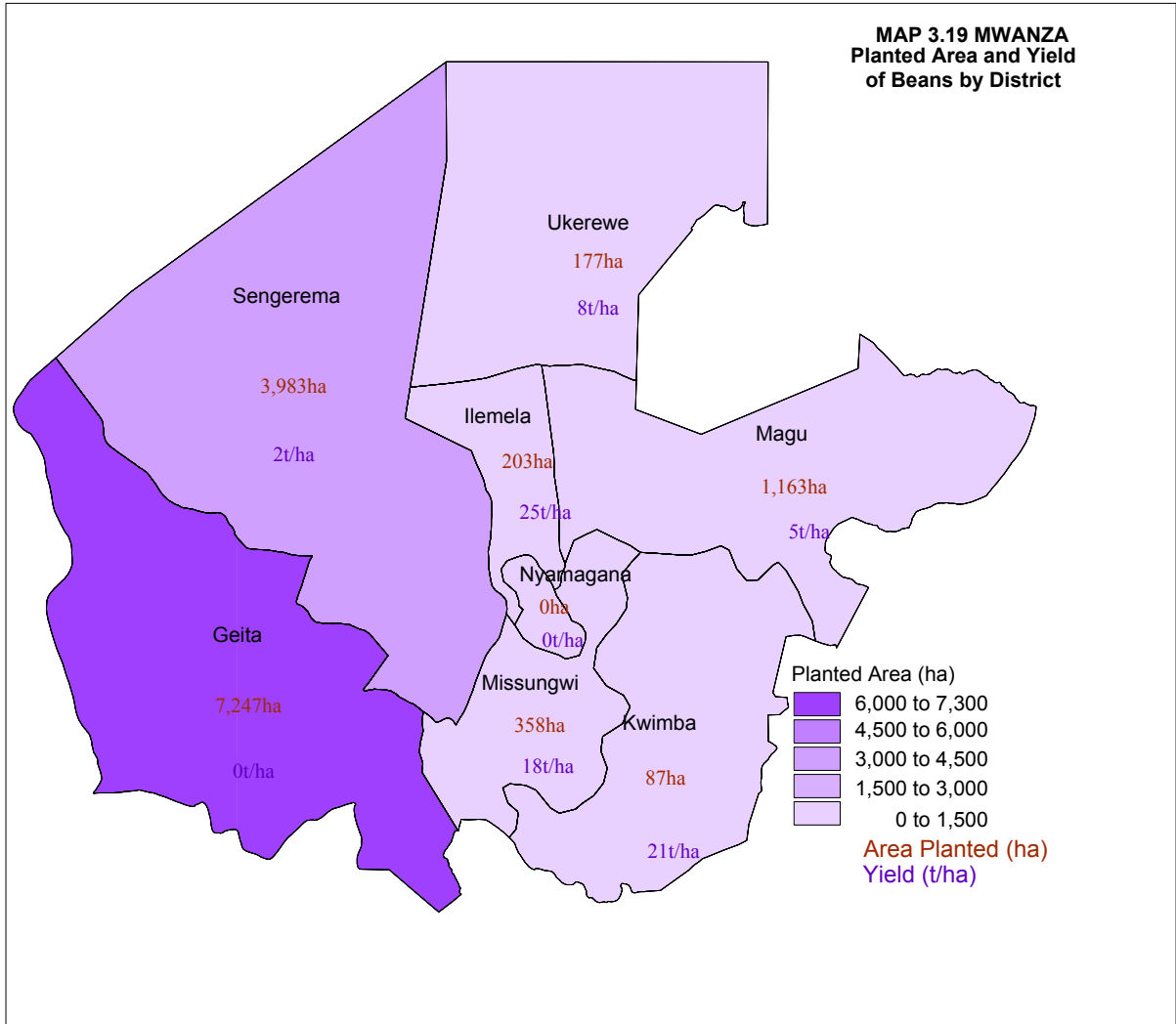
While Geita had the largest area under beans with 17,055 hectares (Chart 3.33), the largest area planted with beans per household was in Missungwi district (0.48 ha) (Chart 3.34). The average area planted per household in the region during the long rainy season was 0.2 ha. The variations in area planted with beans per household for the rest of the districts were relatively small ranging from 0.17 to 0.27 ha, (Map 3.19 and Map 3.20)



In Mwanza region, bean production has increased steadily over the period 1998 to 2003 from 1,000 tonnes in 1998 to 13,000 tonnes in 2003 (Chart 3.35).

The area planted with beans increased erratically over the period from 1996 to 2003. except in 2000 when both the area planted and production dropped (Chart 3.36).





3.3.7 Oil Seed Production

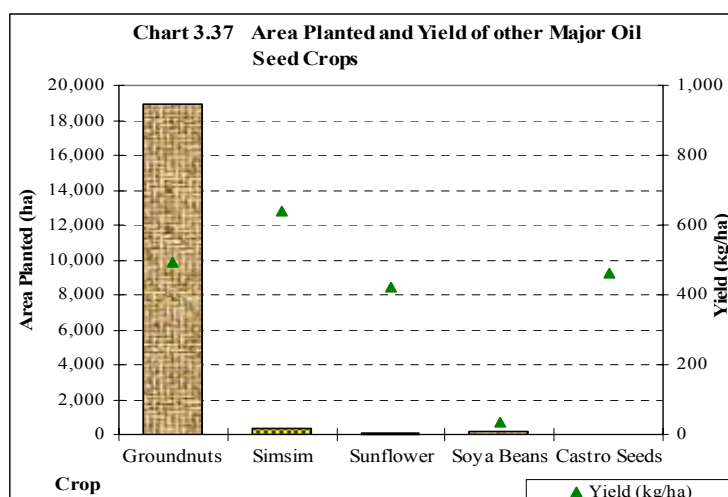
The total production of oilseed crops was 10,091 tonnes planted on an area of 19,501 hectares.. The total planted area of oilseeds in the short rainy season was 18,864 ha

Table 3.5: Area, Quantity Harvested and Yield of Oil Seed Crops by Season

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Sunflower	66	28	424	0	0	0	66	28	424
Simsim	266	181	680	58	26	448	324	207	639
Groundnuts	18,367	9,208	501	566	180	318	18,933	9,388	496
Soya Beans	142	5	35	0	0	0	142	5	35
Castor Seed	23	285	12,391	13	178	13,692	36	463	12,861
Total	18,864	9,707		637	384		19,501	10,091	

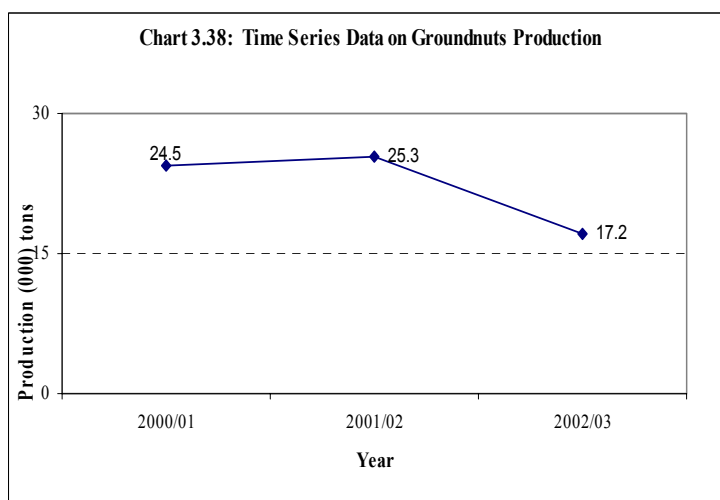
of the total area planted with oil seeds.

Groundnuts were the most important oilseed crop with 18,933 ha (97.1% of the total area planted with oil seeds), followed by simsim (1.6%), soya beans (0.7%), sunflower (0.2%) and castor seed (0.1%) (Table 3.5). The yield of castor seed was relatively high (12,861 kg/ha). simsim had a yield of 639 kg/ha, groundnuts 496 kg /ha and sunflower 424 kg/ha .

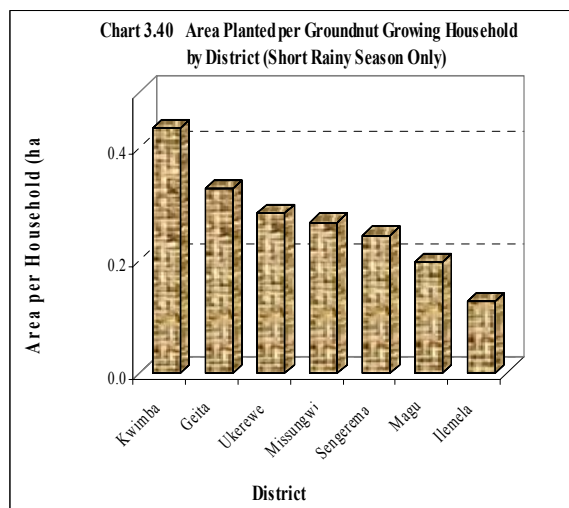
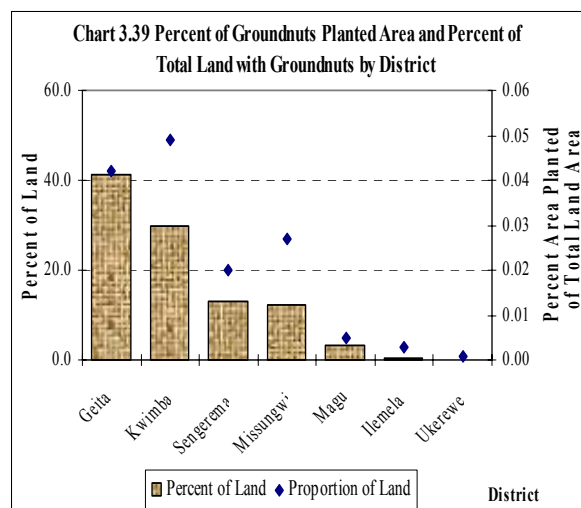


Groundnuts

The number of households growing groundnuts in Mwanza region was 59,101. The total production of groundnuts in the region was 9,388 tonnes from a planted area of 18,933 hectares resulting in a yield of 0.5 t/ha. There has been a large decrease in production of groundnuts over the period 2002 to 2003, from 25,300 tonnes in 2001/02 to 17,200 tonnes in 2002/03. Area planted decreased from 29,300 hectares in 2000/01 to 19,000 hectares in 2002/03.

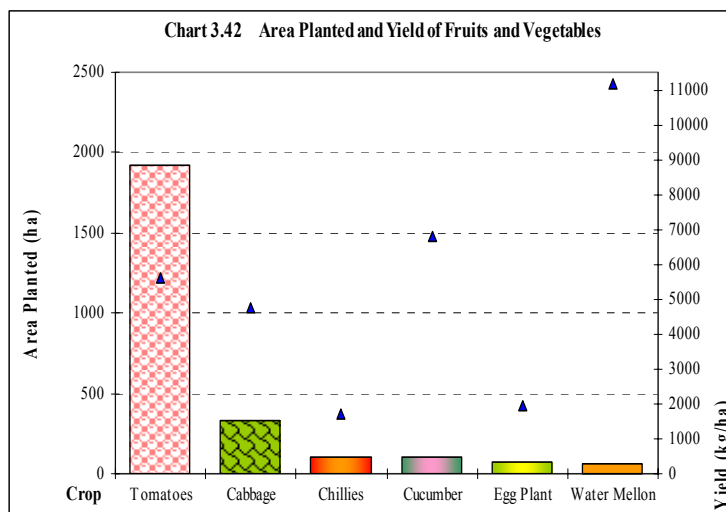


The district with the largest groundnuts planted area was Geita with 7825 hectares (41.3 percent of the total area planted with groundnuts in the region) followed by Kwimba (5,677 ha, 30.0%), Sengerema (2439 ha, 12.9%), Missungwi (2,325 ha, 12.3%), Magu (601 ha, 3.2%), Ilemela (42 ha, 0.2%) and Ukerewe (24 ha, 0.1%). The highest proportion of land with groundnuts was found in Kwimba followed by Geita, Missungwi, Sengerema, Magu, Ilemela and Ukerewe (Chart 3.39 and Map 3.19). The largest area planted per groundnut growing household was found in Kwimba District (0.43 ha) and the lowest planted area was in Ilemela (0.13ha) (Chart 3.40 and Map 3.22).



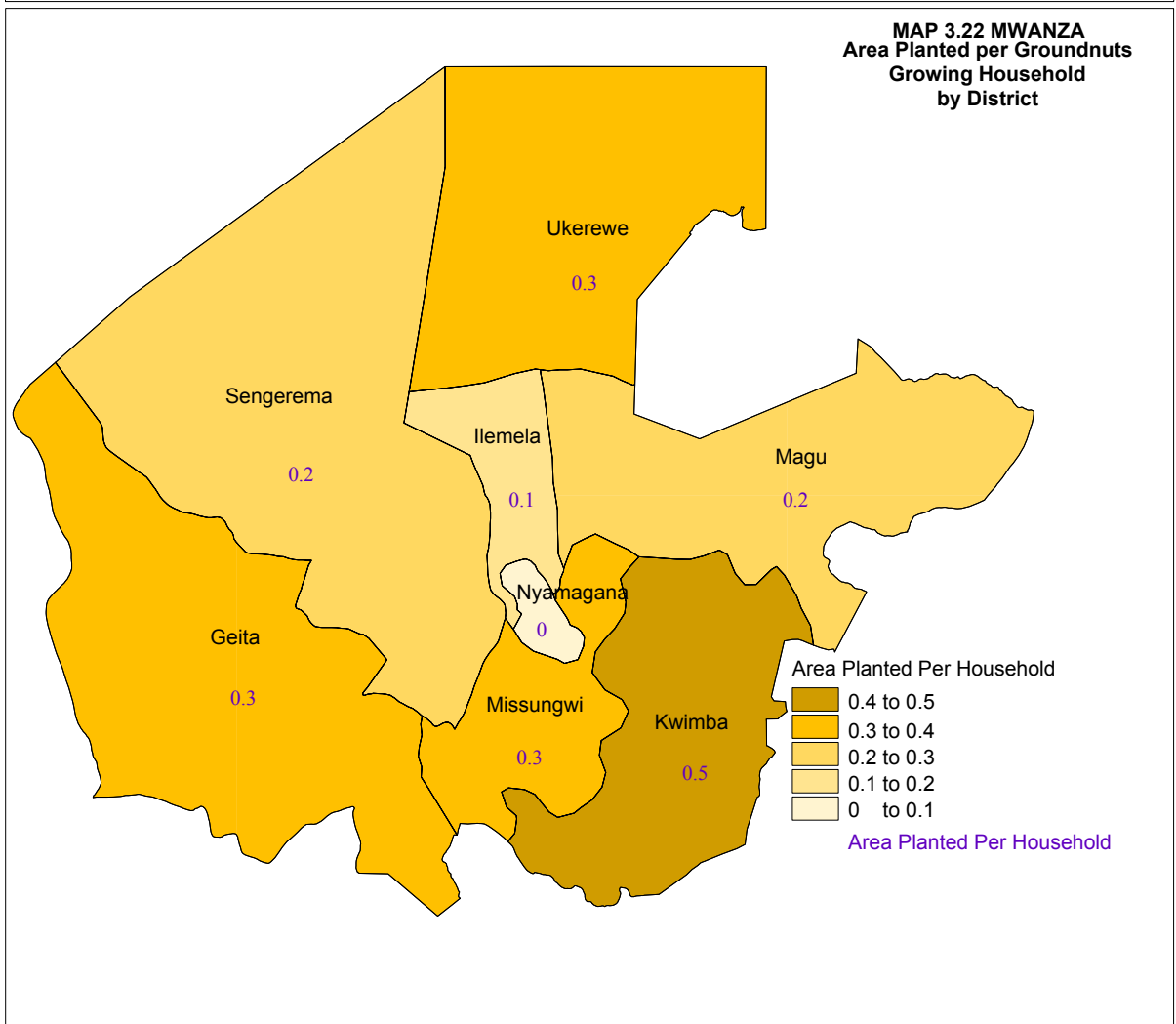
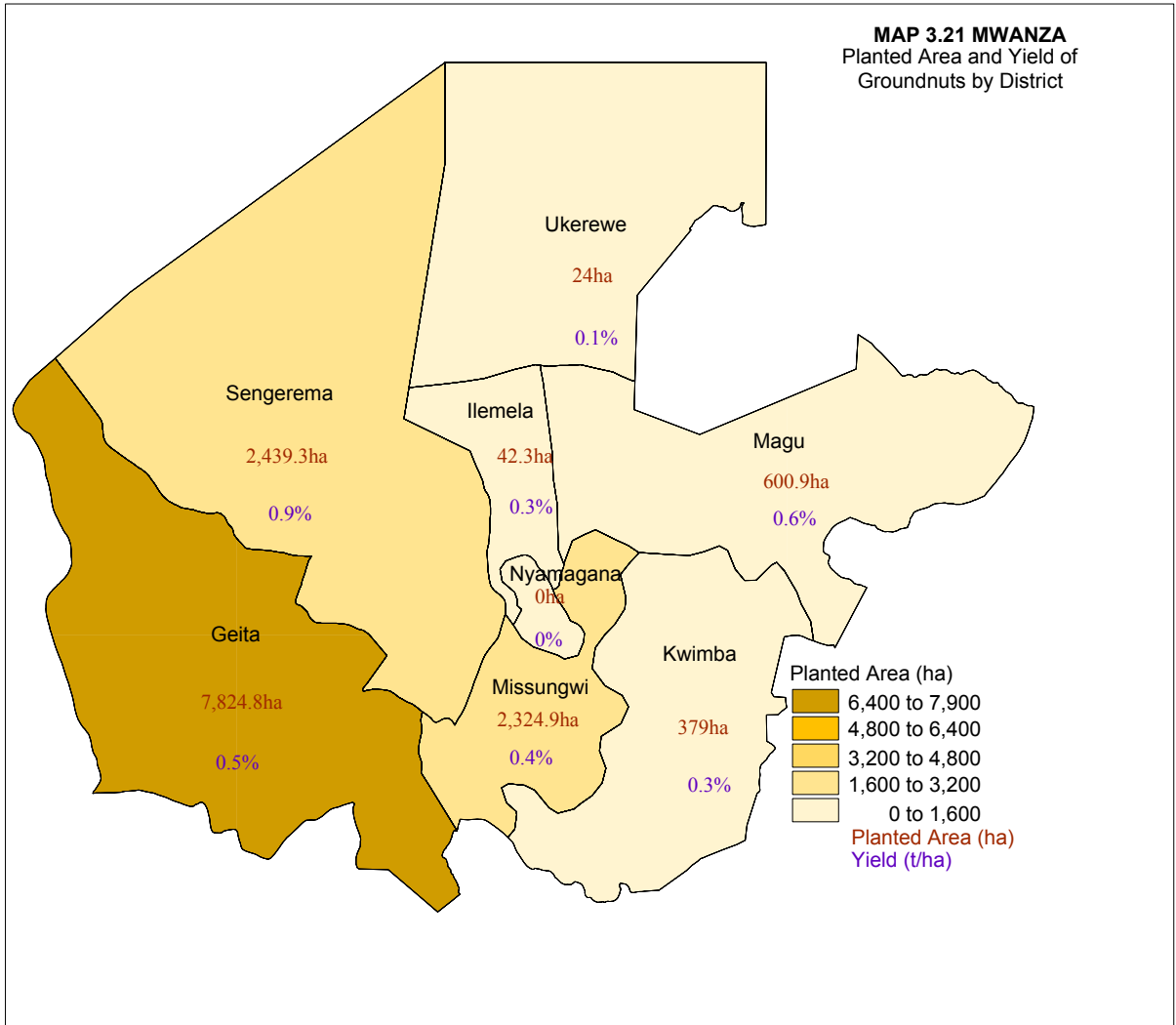
3.3.8 Fruit and Vegetables

The collection of fruit and vegetables production data was difficult due to the small quantities produced per household. Most of the data presented here gives the production of smallholders who grew these crops as cash crops and not merely for household consumption. Most fruit production is from permanent crops and only water melon is reported as an annual crop in this section. The short rainy season is relatively important for fruits and



vegetables production since 56 percent of the total area planted with fruit and vegetables was during this season. For tomatoes, onion, cabbage, water melon, ginger, and pumpkin over 50 percent of the planted area was during the short rainy season. Reliable historical data for time series analysis of fruits and vegetables are not available.

The total production of fruit and vegetables was 16,817 tonnes. The most cultivated fruit and vegetable crop was tomato with a production of 10,715 tonnes. followed by onions (1,664t),cabbage (1,547t). The production of the other fruits and vegetables crops was relatively small (Table 3.6).



The yield of tomatoes was 5,589 kg/ha, cabbage (4.7 t/ha), water melon (17t/ha) and pumpkins (1t/ha). Radish and spinach had yields of 6.8 and 3.5t/ha respectively (Chart 3.42).

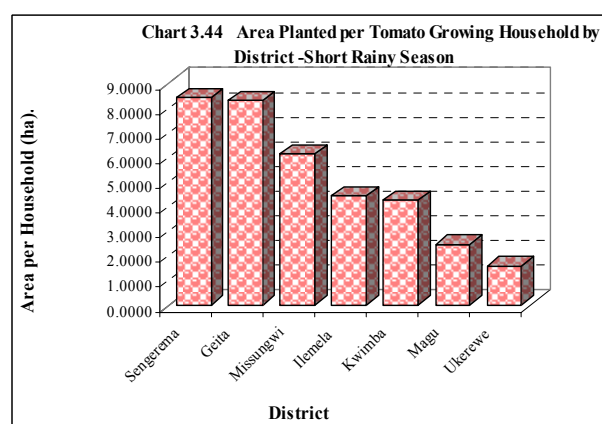
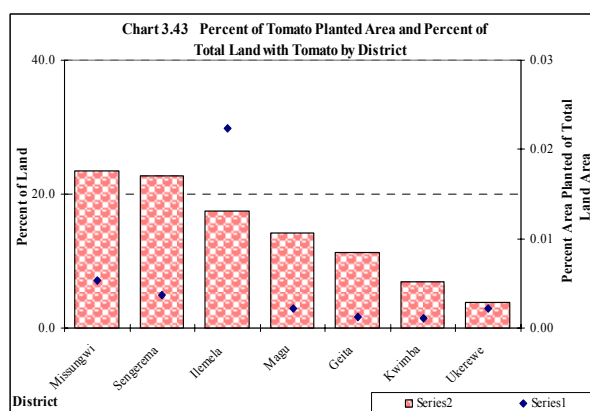
Table 3.6: Area, Production and Yield of Fruits and Vegetables by Season

Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Okra	6	1	167	0	0	0	6	1	167
Radish	0	0	0	10	68	6,800	10	68	6,800
BitterAubergine	0	0	0	0	0	0	0	0	0
Onions	206	998	4,845	110	666	6055	316	1664	5,266
Ginger	21	10	476	0	0	0	21	10	476
Cabbage	199	890	4,472	127	657	5,173	326	1,547	4745
Tomatoes	1,047	6,058	5,786	870	4,657	5,353	1,917	10,715	5589
Spinnach	20	36	1,800	44	190	4,318	64	226	3531
Carrot	45	66	1,467	55	51	927	100	117	1170
Chillies	68	69	1,015	35	108	3,086	103	177	1718
Amaranths	69	530	7,681	73	173	2,370	142	703	4951
Pumpkins	42	50	1,190	0	0	0	42	50	1,190
Cucumber	54	450	8,333	46	230	5,000	100	680	6800
Egg Plant	16	49	3,063	58	95	1,638	74	144	1946
Water Mellon	49	656	13,388	15	59	3,933	64	715	11172
Total	1,842	9,863		1,443	6,954		16,817	16,817	

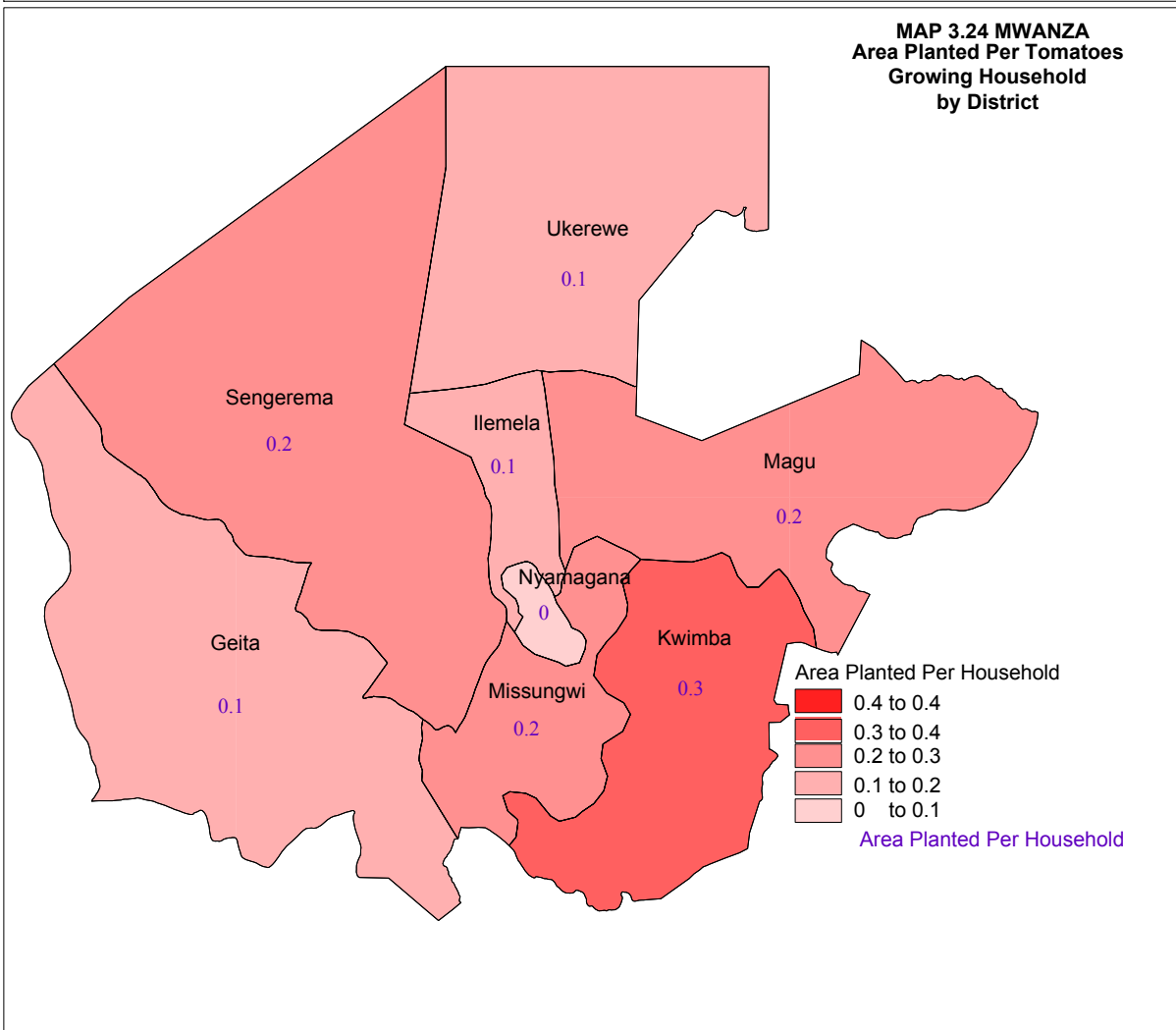
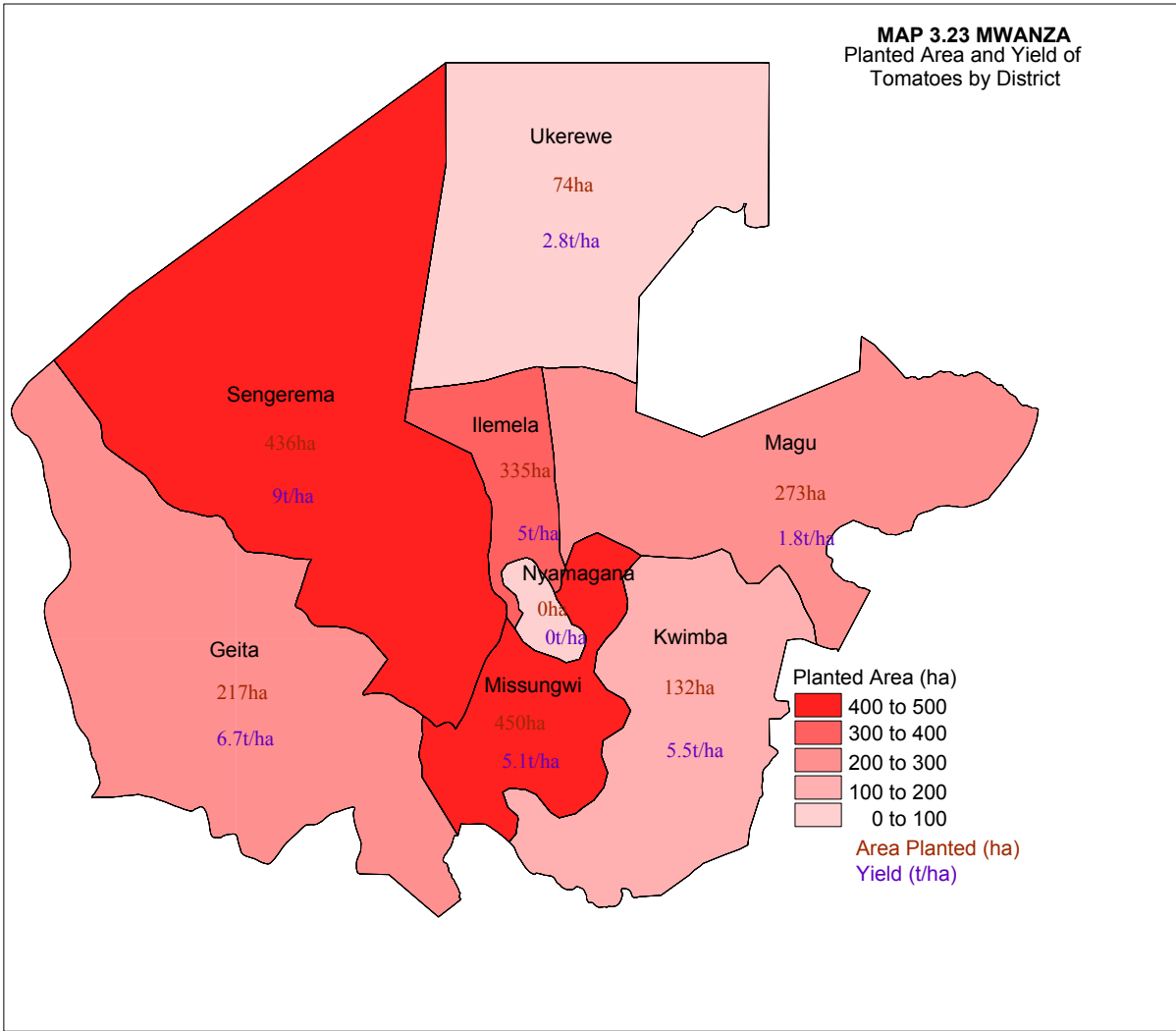
Tomatoes

The number of households growing tomatoes in the region during the long rainy season was 5,400 and in the short rainy season the number was 5,016. This represents 4.5 percent of the total crop growing households in the region during the long rainy season and 1.6 percent during the short rainy season.

Missungwi district had the largest planted area of tomatoes (23.5% of the total area planted with tomatoes in the region), followed by Sengerema (22.7%), Ilemela (17.5%), Magu (14.3%), Geita (11.3%), Kwimba (6.9%) and Ukerewe (3.9%). (Chart 3.43 and Map 3.22)



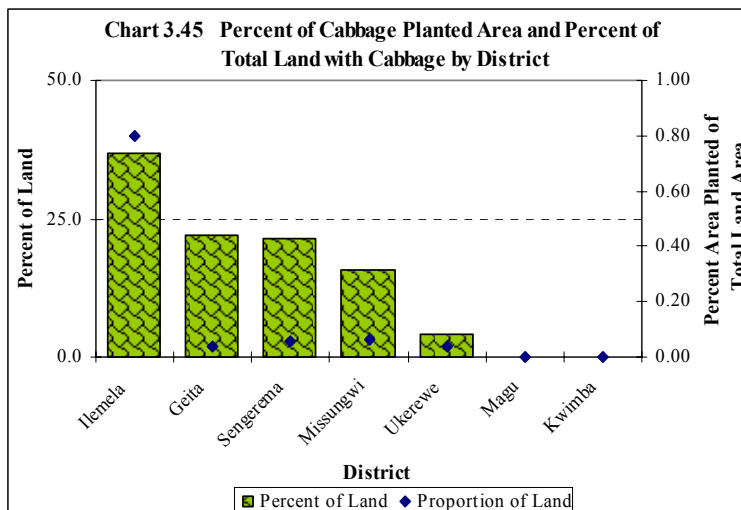
The highest proportion of land with tomatoes was found in Ilemela followed by Geita and Missungwi district, the rest of the districts had relatively low percentage of land used for tomato production (Chart 3.43 and Map 3.20). The largest area planted per tomato growing household was found in Kwimba district (0.26 ha) followed by Magu (0.24 ha), Sengerema (0.22 ha), Missungwi (0.21 ha), Ilemela (0.14 ha), Geita (0.14 ha) and Ukerewe (0.12 ha) (Chart 3.44 and Map 3.23). The total area planted with tomatoes accounted for 0.3 percent of the total area planted with annual crops and vegetables during the census year.



Cabbage

The number of households growing cabbages in the region during the long rainy season was 1,125 and 1,339 in the short rainy season. This represents 0.94 percent of the total crop growing households in the region in the long rainy season and 0.42 percent in the short rainy season.

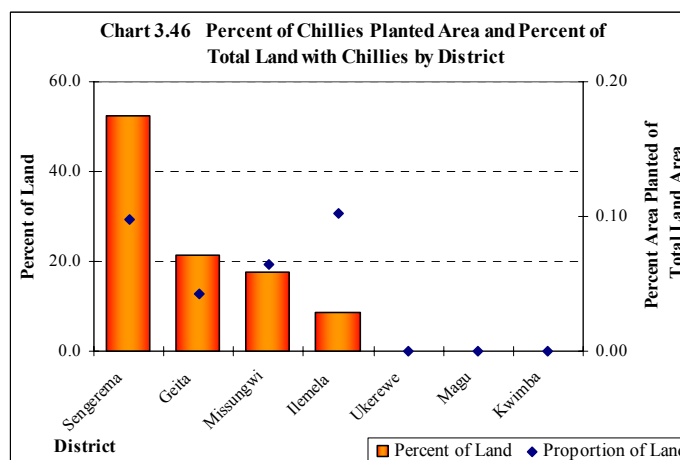
Ilemela district had the largest planted area of cabbage (120 ha, 36.9% of the total area planted with cabbage in the region), followed by Geita (72 ha, 22.2%), Sengerema (69 ha, 21.2%), Missungwi (51 ha, 15.7%), Ukerewe (13 ha, 4.2%) Magu and Kwimba reported to have no planted area (Chart 3.45 and Map 3.25 and 3.26). The total area planted with cabbages accounted for 0.05 percent of the total area planted with annual crops and vegetables during the short and long rainy seasons.

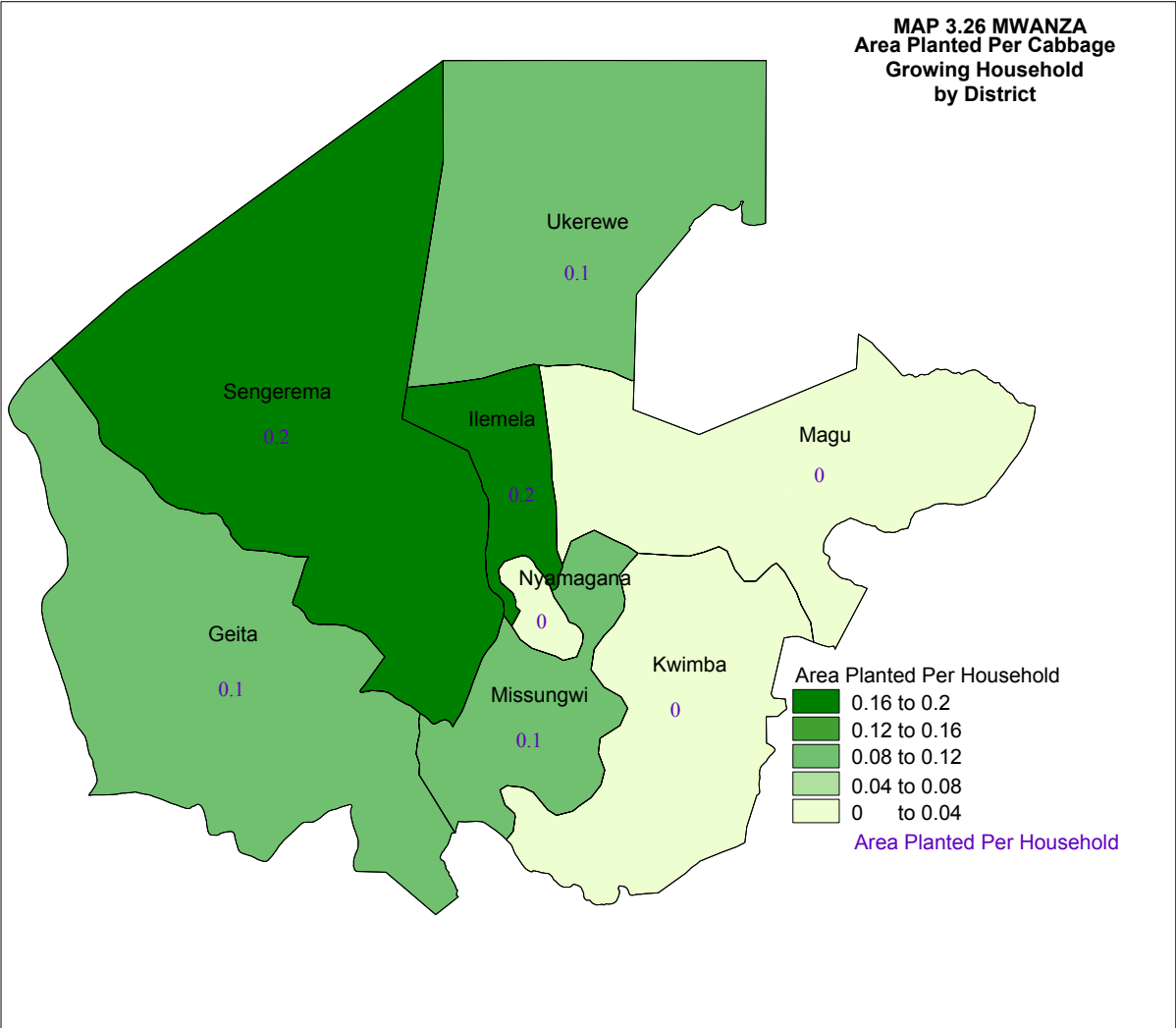
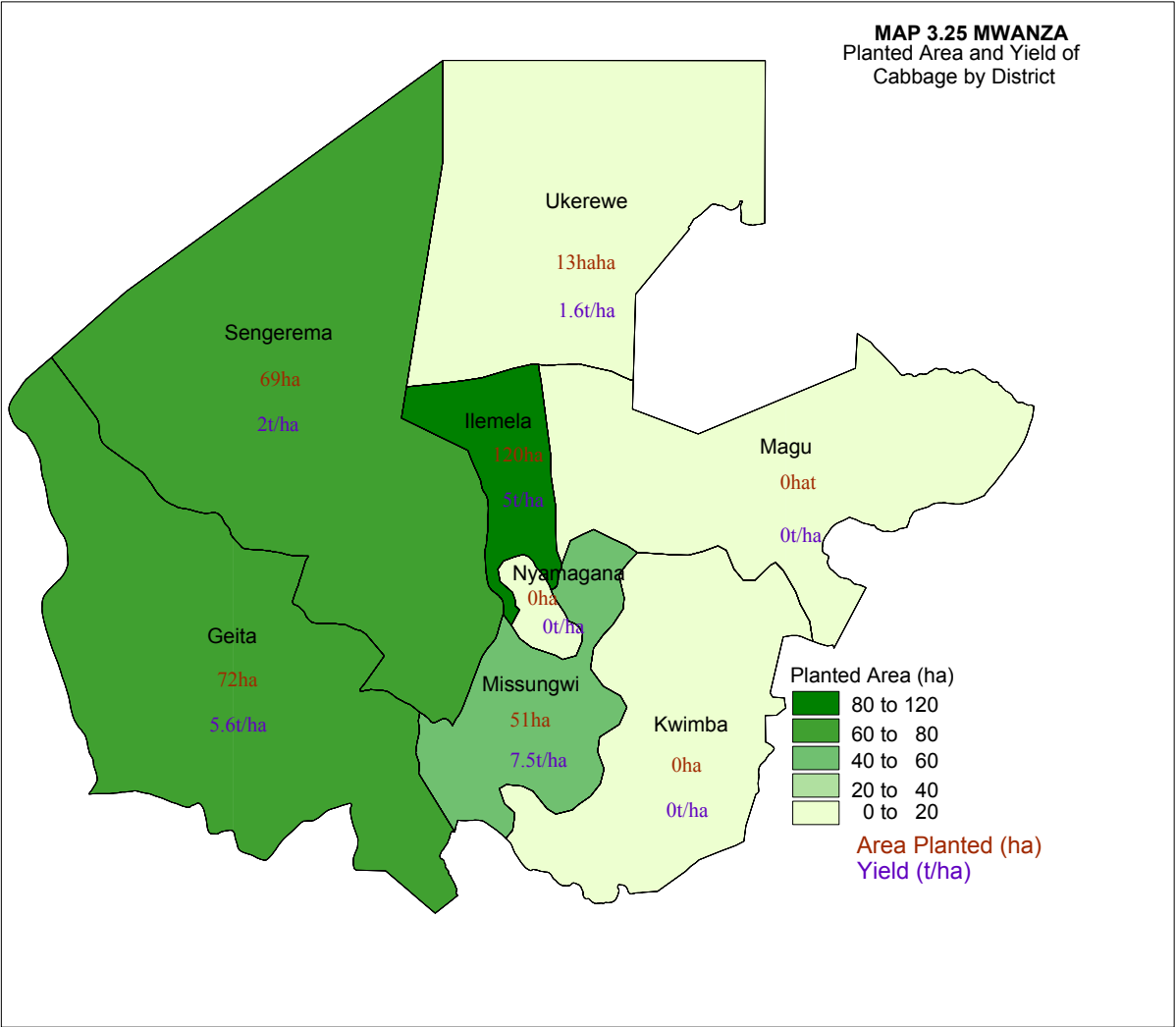


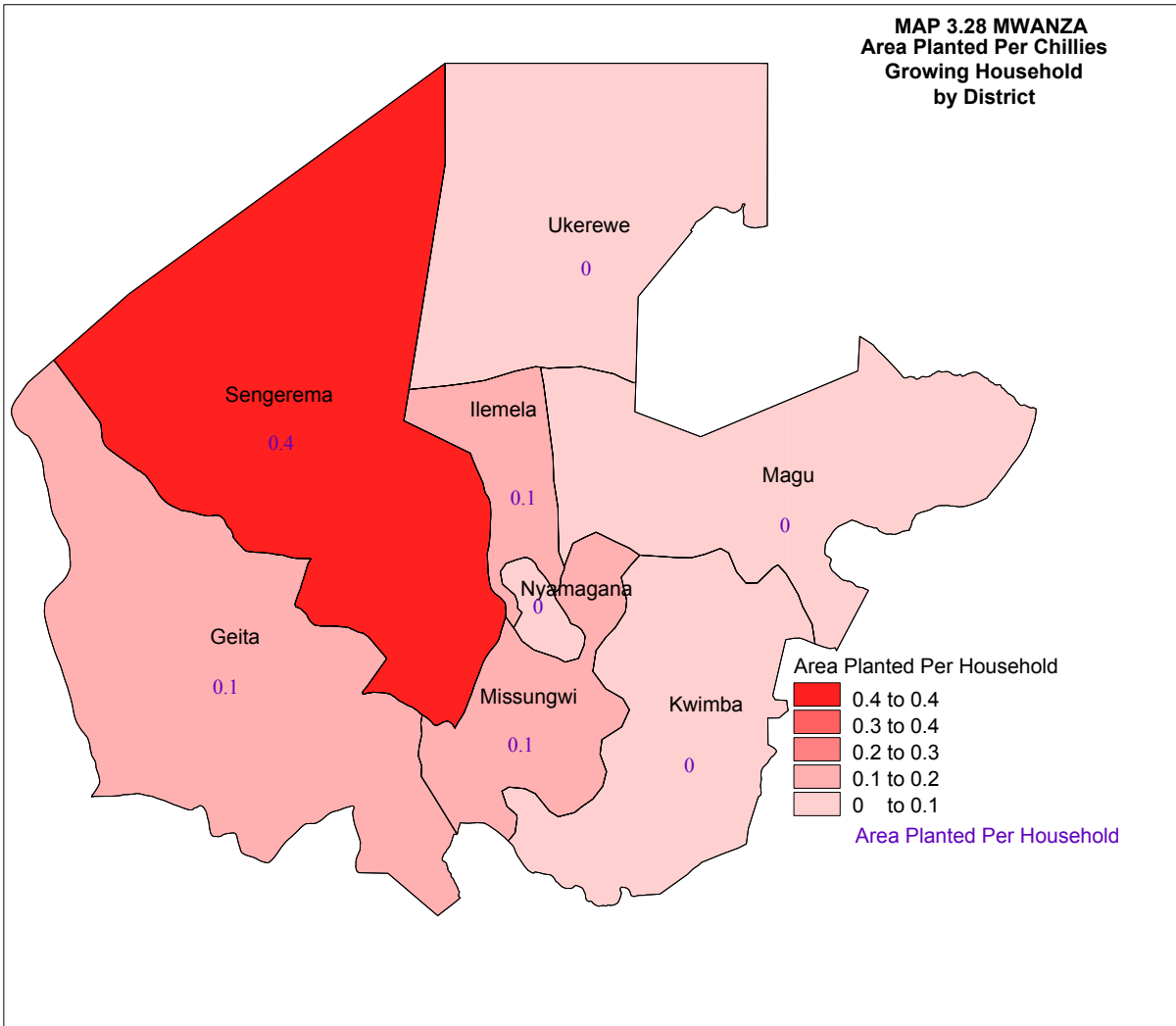
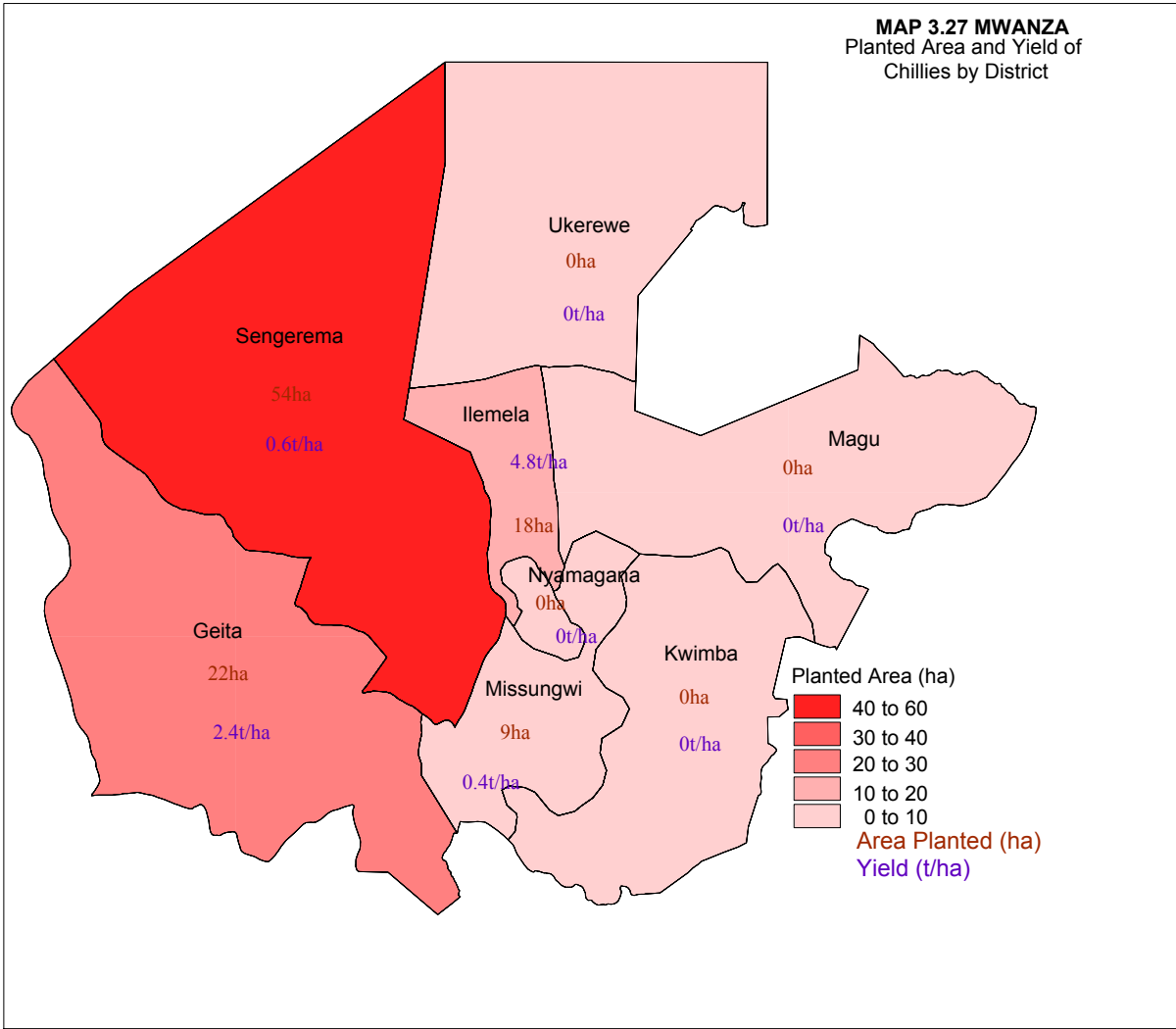
Chillies

The number of households growing chillies in the region during the long rainy season was 531 and it was 325 during the short rainy season. This represented 0.44 percent of the total crop growing households in the region in the long rainy season and 0.10 percent in the short rainy season. Sengerema district had the largest planted area of chillies (54 ha, 52.1% of the total area planted with chillies in the region), followed by Geita (22 ha, 21.6%), Missungwi (18ha, 17.5%) and Ilemela (9ha, 8.7%), Chillies are not produced in Ukerewe, Magu, and Kwimba districts. The largest proportion of the area planted with chillies was found in Sengerema and Ilemela districts (0.1%), followed by Missungwi (0.04%), and Geita (0.04%). (Chart 3.46 and Map 3.27 and 3.28).

The total area planted with chillies accounted for 0.02 percent of the total area planted with annual crops and vegetables during the short and long rainy seasons.

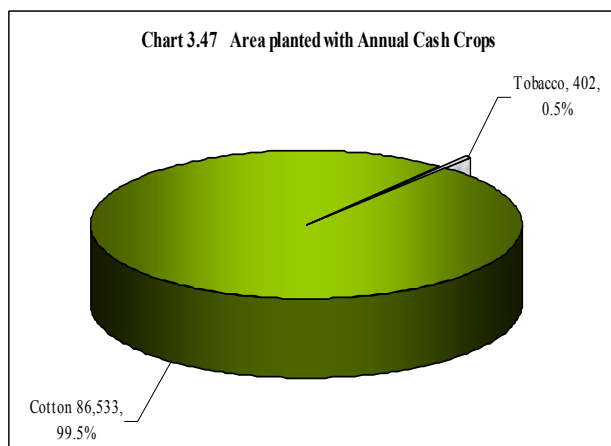






3.3.9 Other Annual Crop Production

Most of the other annual crops are cash crops. An area of 86,935 ha was planted with other annual crops and cotton was the most prominent followed by tobacco, jute and seaweed. The area planted with annual cash crops in short rainy season was 86,938 ha which represents 99.5 percent of the total area planted with other annual cash crops in short and long rainy season. Only 49,837 tonnes of cotton was produced in Mwanza Region on a planted area of 86,533 ha. It was produced during both the long and short rainy seasons. The crop is grown in all districts except Ukerewe.



Cotton

Only 49,837 tonnes of cotton was produced in Mwanza Region on a planted area of 86,533 ha. It was many produced in the short rainy season. The crop is grown in all districts except Ukerewe (Map3.29 and 3.30)

Table 3.6: Area, Production and Yield of Annual Cash Crops by Season

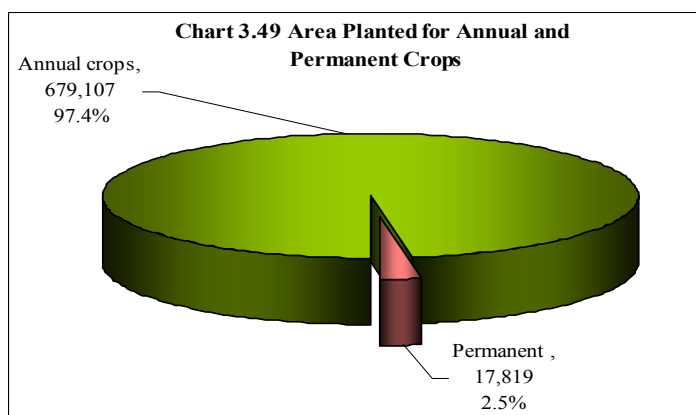
Crop	Short Rainy Season			Long Rainy Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)
Seaweed	0	0	0	0	0	0	0	0	0
Cotton	84,683	49,026	579	1,850	811	438	86,533	49,837	576
Tobacco	369	83	225	33	17	515	402	100	249
Jute	0	0	0	0	0	0	0	0	0
TOTAL	85,052	49,109		1,883	828		86,935	49,937	

Tobacco

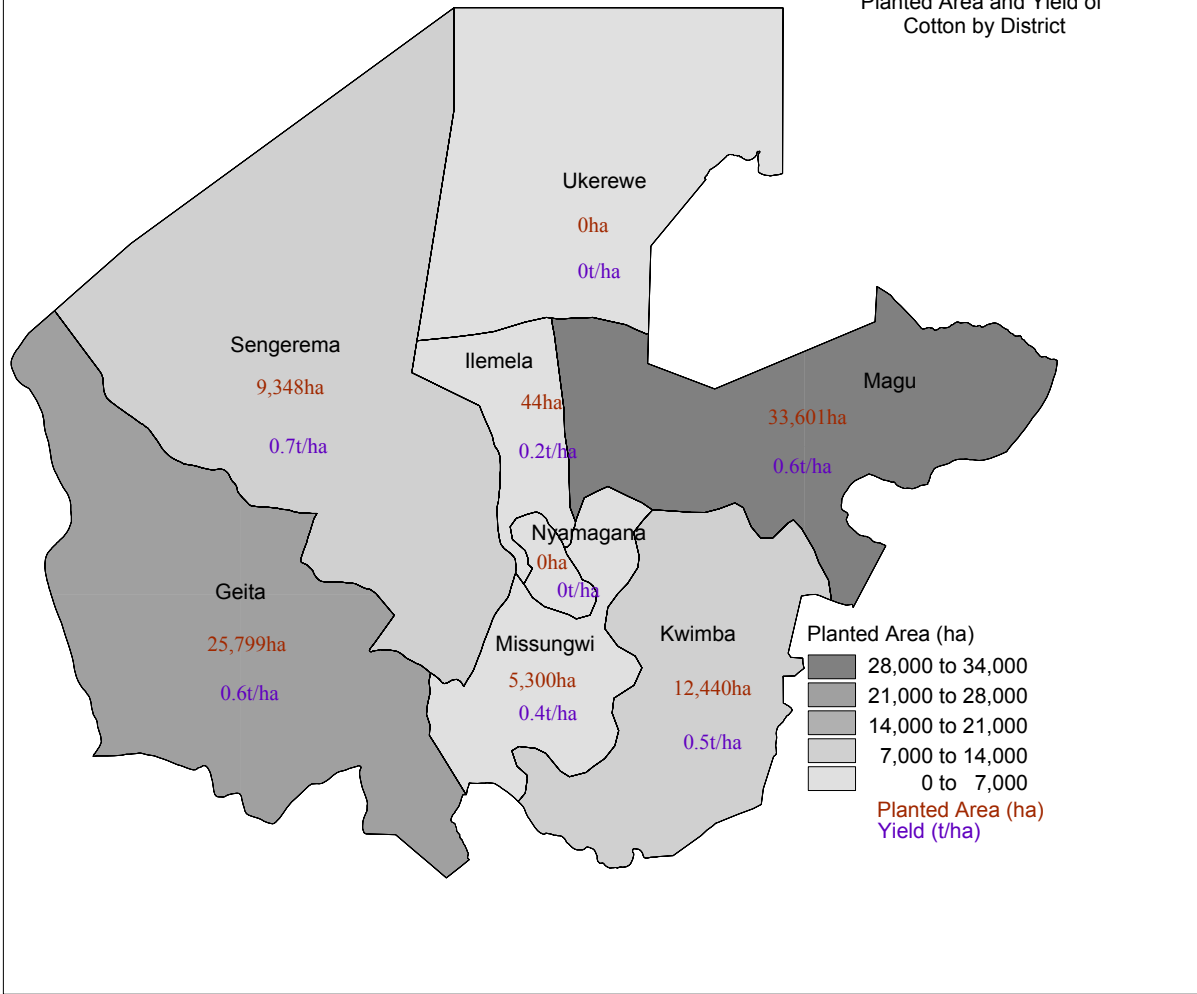
The quantity of tobacco produced was 100 tonnes. Tobacco had a planted area of 402 ha, most of which was planted in the short rainy season. Tobacco production is concentrated in 3 districts with Geita having the largest planted area (71.6% of total area planted with tobacco in the region), followed by Magu (22.1%) and Sengerema (6.3%). other districts had no production of Tobacco. (Map 3.31 and 3.32)

3.4 Permanent Crops

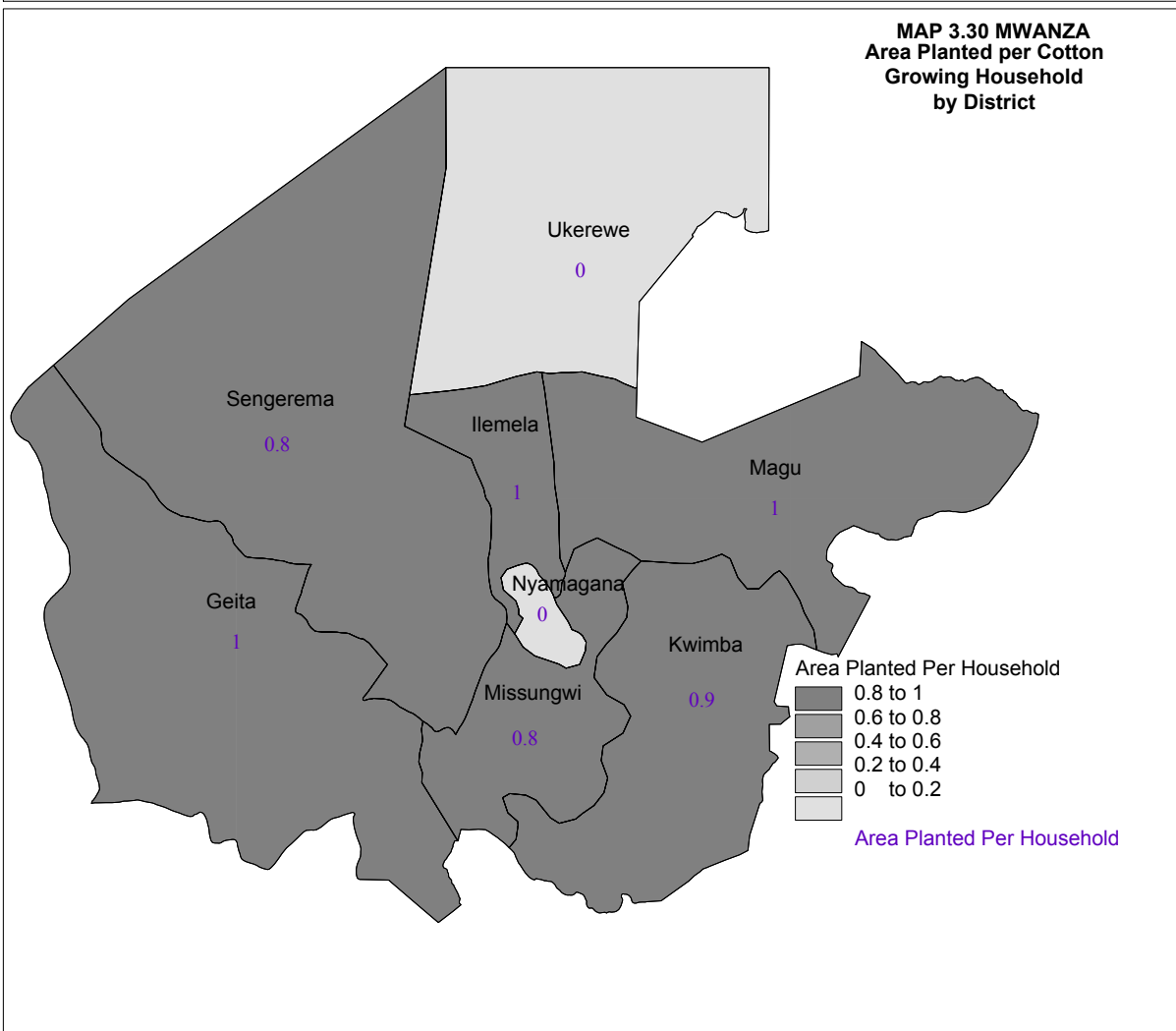
Permanent crops (sometimes referred as perennial crops) are crops that normally take over a year to mature and once mature they can be harvested for a number of years. For most crops, it is easy to determine if they are annual or permanent. However, for crops like cassava and bananas the distinction is not so clear. Cassava has varieties

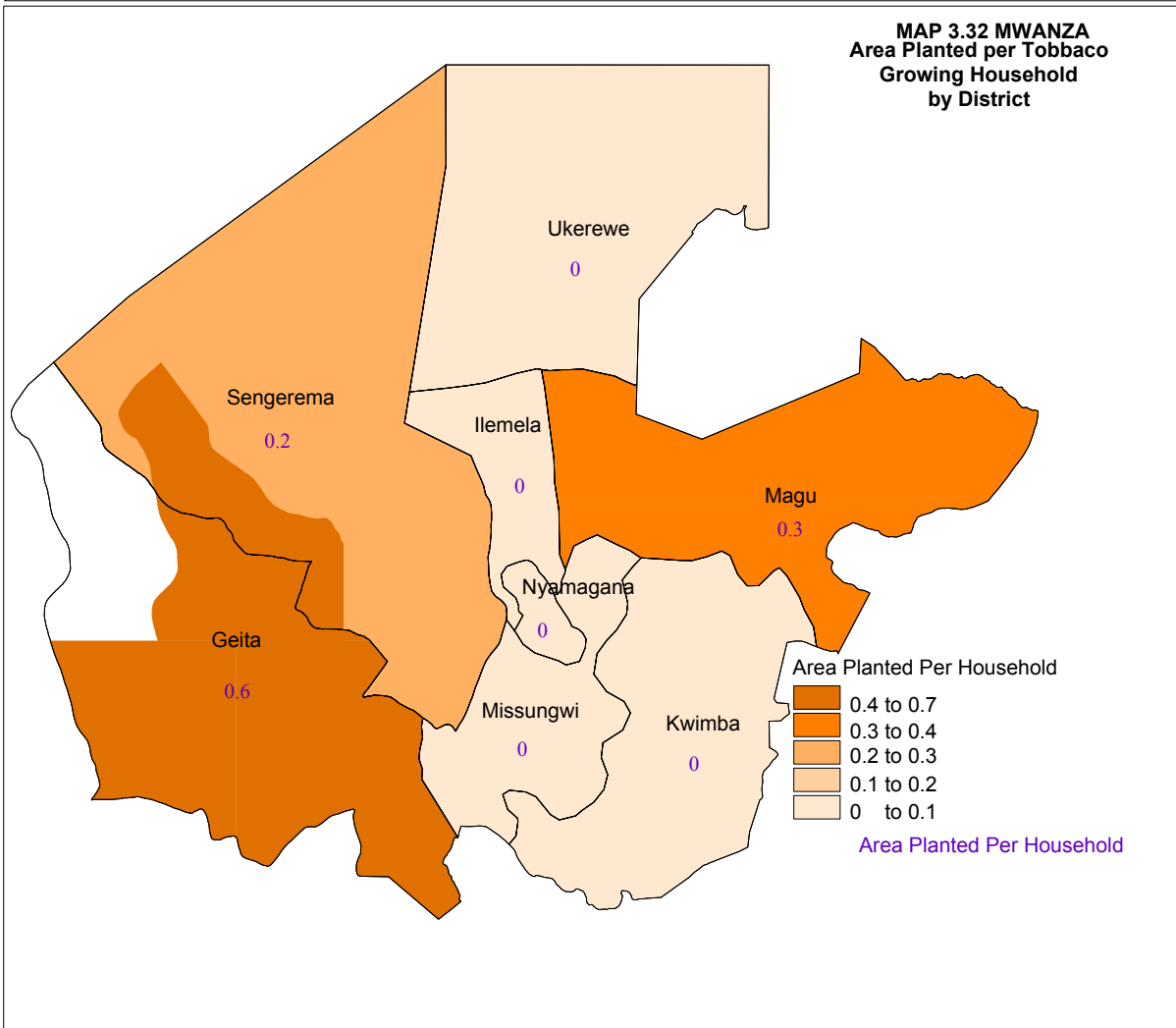
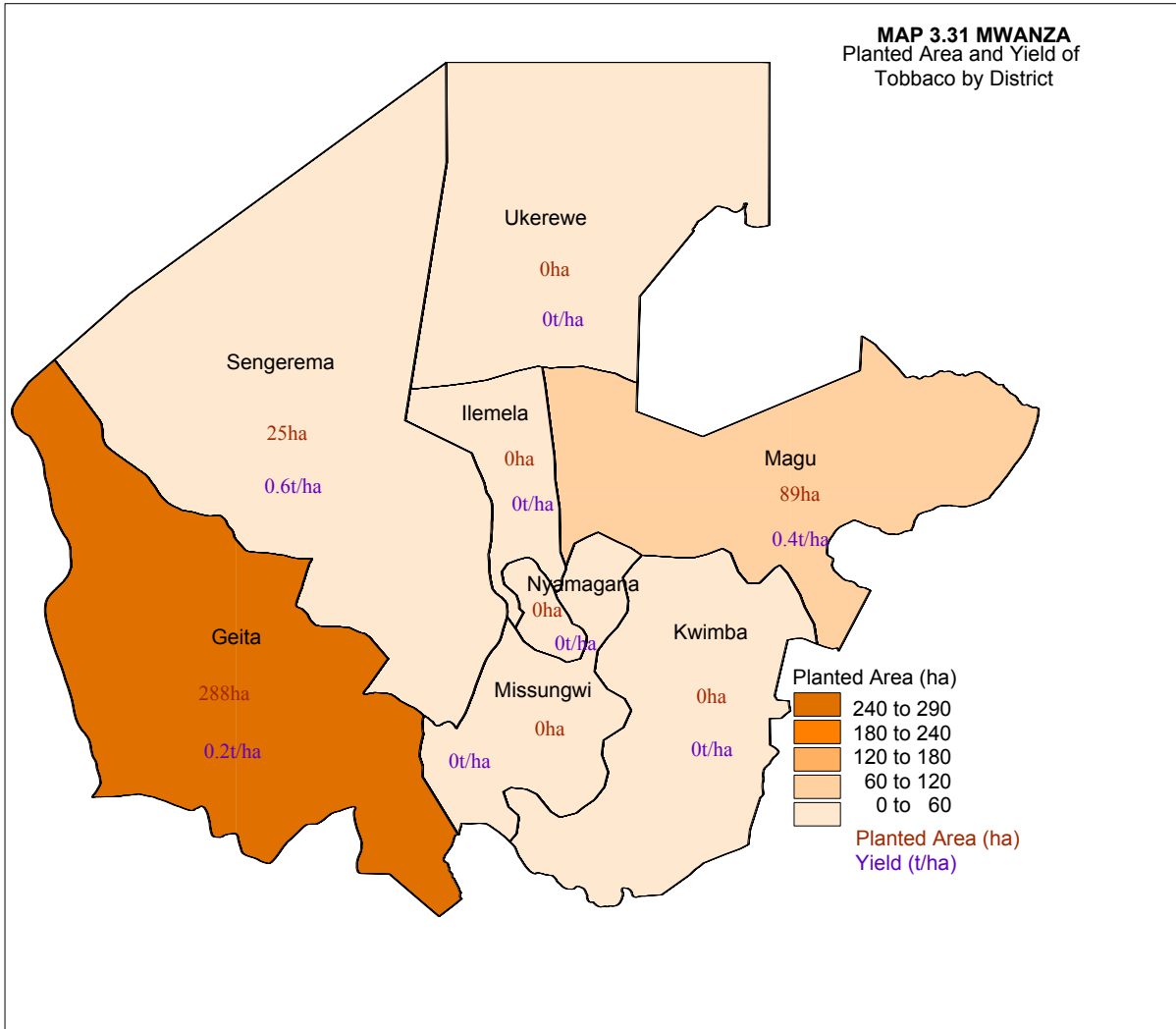


MAP 3.29 MWANZA
Planted Area and Yield of Cotton by District



MAP 3.30 MWANZA
Area Planted per Cotton Growing Household by District

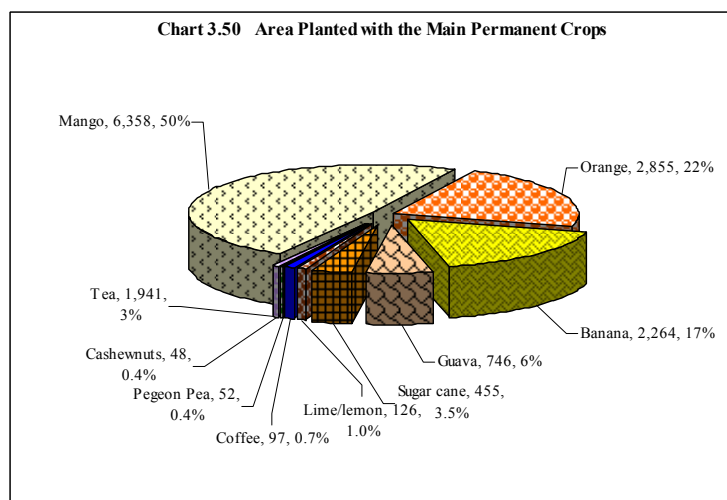




That mature within a year and produces only one harvest, whilst other varieties survive for more than one year and produce several harvests. In this census, cassava was treated as an annual crop. Conversely, bananas normally take less than a year to mature, survive for more than one year and are thus treated as a permanent crop. In this report the agriculture census results are presented for the most important permanent crops in terms of planted area, production and yield. Previous censuses and surveys did not measure these variables for permanent crops, therefore no time series analysis is made in this section.

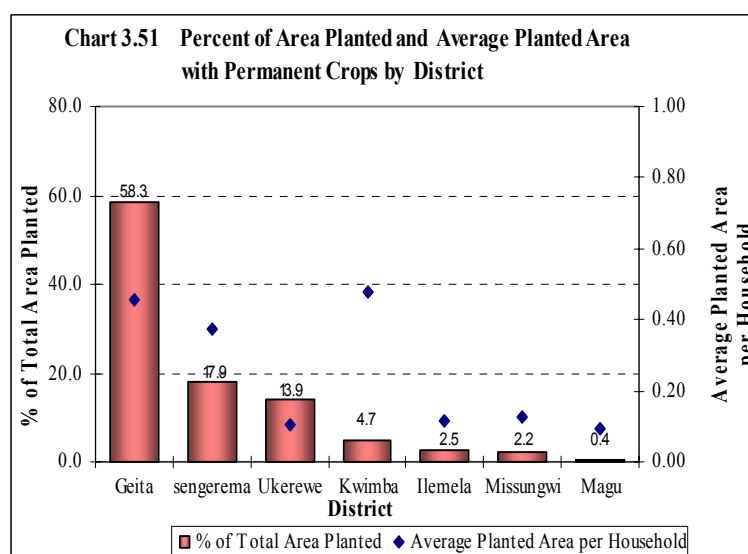
The area of smallholder land with permanent crops was 17,819 hectares (2.6% of the area planted with annual crops in the region). However, the area planted with annual crops is not the actual physical land area as it double counts the area planted more than during the year, whilst for the planted area for permanent crops is the same as physical land area. So the percentage physical area planted with permanent crops would be higher than indicated in Chart 3.49.

The most important permanent crop in Mwanza region is mango which accounts for a planted area of 6,358 ha, (35.5% of the planted area of all permanent crops) followed by oranges (2,855 ha, 16.0%), banana (2,264 ha, 12.7%). Each of the remaining permanent crops had an area of less than 5 percent of the total area planted with permanent crops (Chart 3.50).



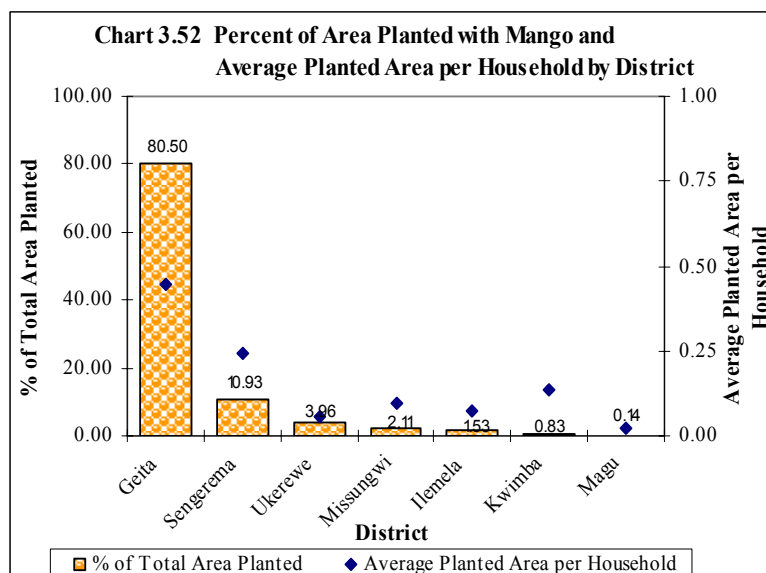
Geita district had the largest area under smallholder permanent crops (10,383 ha, 58.3%). This is followed by Sengerema (3,197 ha, 17.9%), Ukerewe (2,480 ha, 13.9%), Kwimba (846 ha, 4.7%), Ilemela (451 ha, 2.5%), Missungwi (390 ha, 2.2%) and Magu (73 ha, 0.4%). However, Kwimba had the largest area per permanent crop growing household (0.48 ha) followed by Geita (0.45 ha), Sengerema (0.37 ha), Missungwi (0.13 ha), Ilemela (0.11 ha), Magu and Ukerewe both had 0.1 ha, (Chart 3.51).

In terms of area of permanent crops planted expressed as a percentage of the total area planted with crops per district, Ukerewe had the highest (7.2%) followed by Geita (5.6%), Ilemela (3.0%), Sengerema (2.7%), Kwimba (0.7%), Missungwi (0.5%) and Magu (0.1%).



3.4.1 Mango

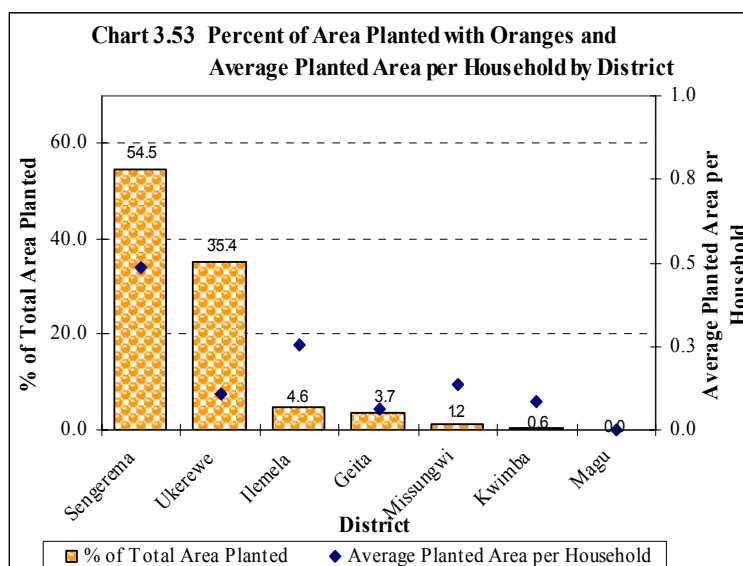
The total production of Mango by smallholders was 56,094 tonnes. In terms of area planted, mango was the most important permanent crop grown by smallholders in the region. They were grown by 22,492 households (6.6% of the total crop growing households). The average area planted with mango per household was relatively small at around 0.28 ha per mango growing household and the average yield obtained was 24,982 kg/ha from a harvest area of 670 hectares.



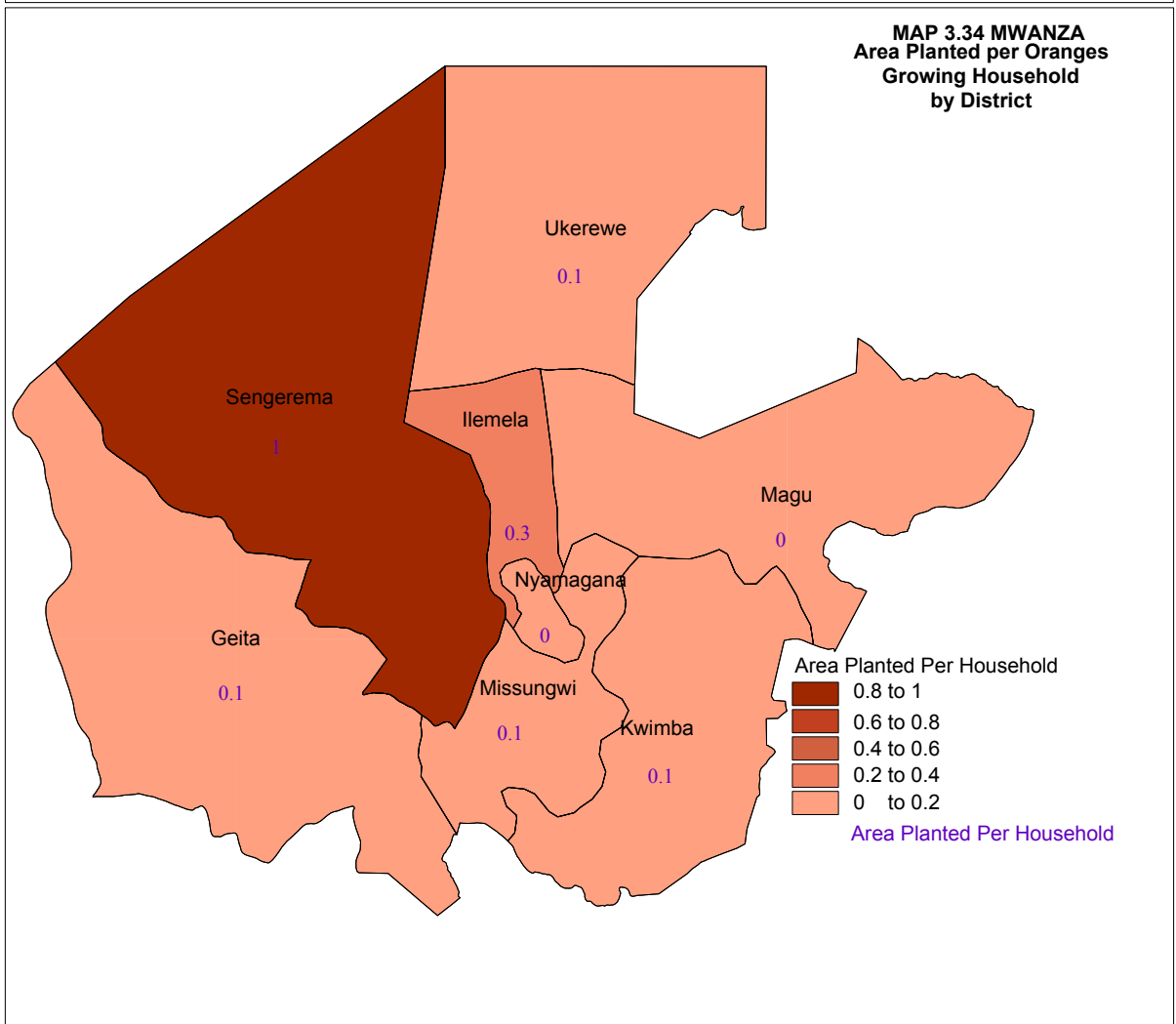
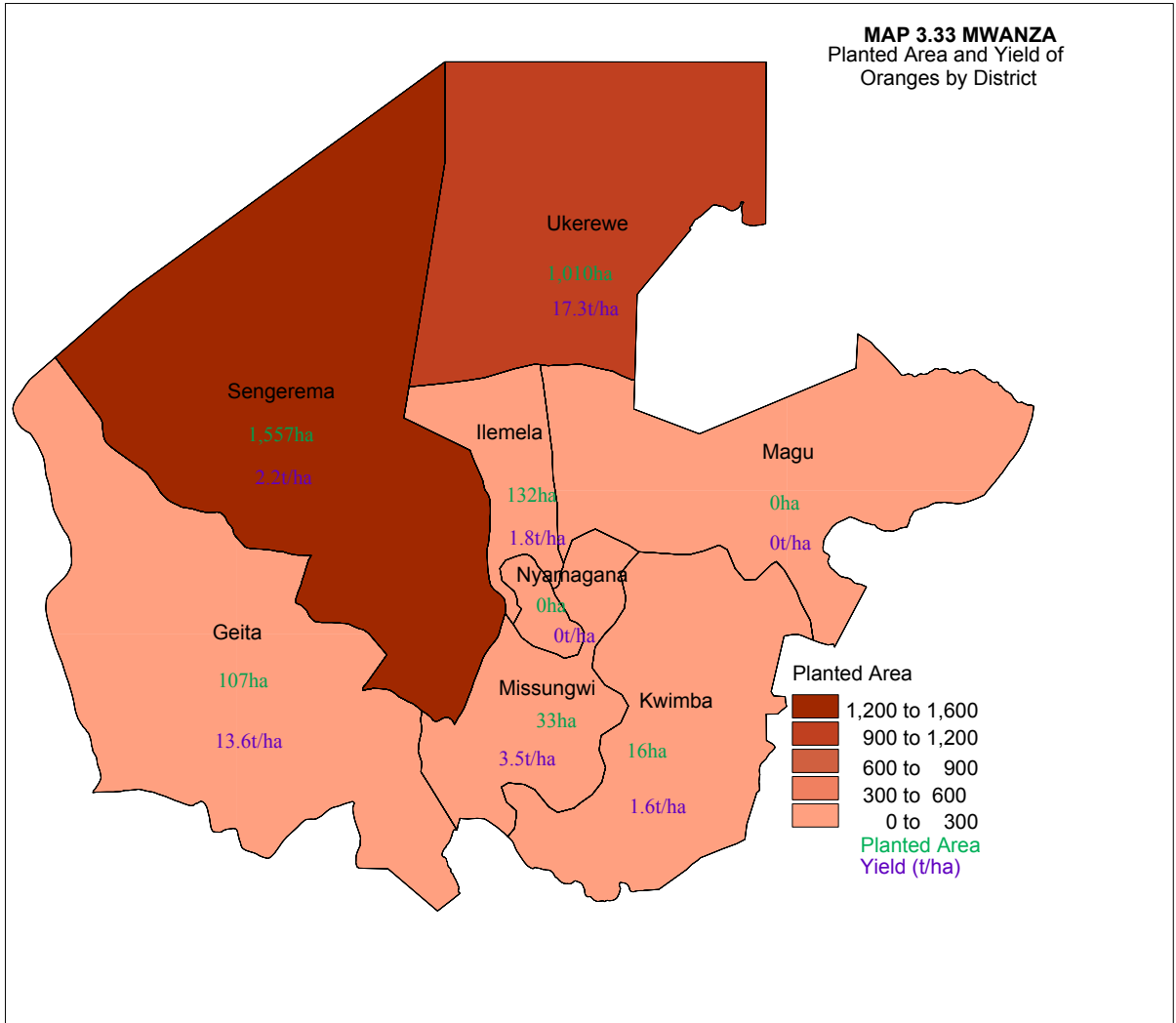
Geita had the largest area of mango in the region (5,118 ha, 80.5%), followed by Sengerema (695 ha 10.9%), Ukerewe (252 ha, 3.9%), Missungwi (134 ha, 2.1%), Ilemela (97 ha, 1.5%), Kwimba (53 ha 0.8%) and Magu (9 ha, 0.1%) .(Chart 3.52) .

3.4.2 Oranges

The total production of oranges by smallholders was 22,737 tonnes. In terms of area planted, orange was the second most important permanent crop grown by smallholders in the region. Oranges was grown by 13,851 households (4.1% of the total crop growing households). The average area planted with oranges per household was relatively small at around 0.27 ha per orange growing household and the average yield obtained by smallholders was 22.2 t/ha from a harvest area of 1,022 hectares.(Chart 3.53, Map 3.33and 3.34)

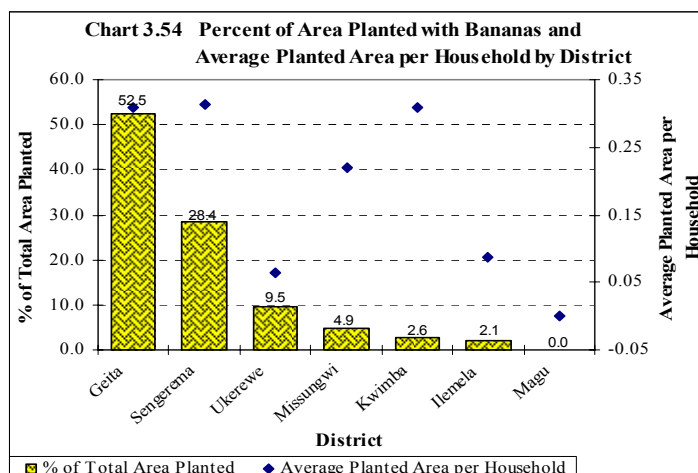


Sengerema had the largest area of oranges in the region (1,557 ha, 54.5%) followed by Ukerewe (1,010 ha, 35.4%), Ilemela (132 ha, 4.6%), Geita (107 ha, 3.7%), Missungwi (33 ha, 1.2%),Kwimba (16 ha, 0.6%) and Magu district had no production, the average area planted with oranges per orange planting household was highest in Sengerema (0.49 ha) followed by Ilemela (0.25 ha), Missungwi (0.13 ha), Ukerewe () Kwimba (0.08 ha), and Geita (0.06 ha).



3.4.3 Banana

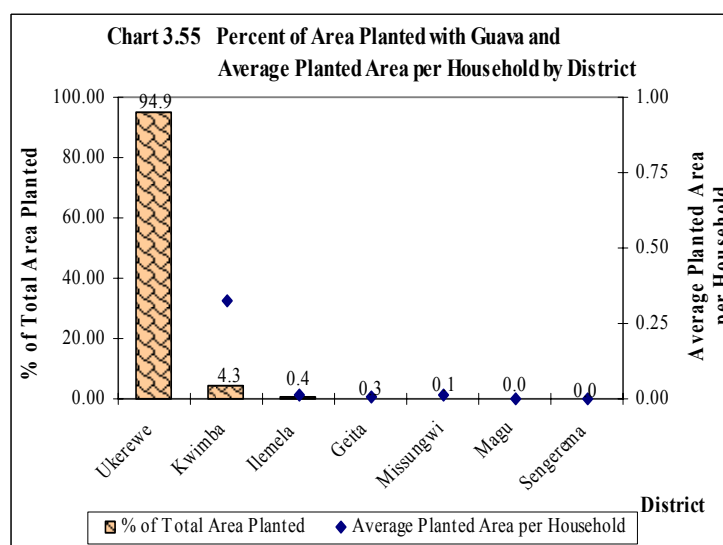
The total production of banana by smallholders was 12,351 tonnes. In terms of area planted, banana was the third most important permanent crop grown by smallholders in the region. It was grown by 10,472 households (3.09% of the total crop growing households). The average area planted with banana per household was relatively small at around 0.22 ha per banana growing household and the average yield obtained by smallholders was 8,374 kg/ha from a harvested area of 1,475 hectares.



Geita had the largest planted area of bananas in the region (1,189 ha, 52.5%) followed by Sengerema (644 ha, 28.4%), Ukerewe (215 ha, 9.5%), Missungwi (109 ha, 4.9%), Kwimba (59 ha, 2.6%) and Ilemela (48 ha, 2.1%) However, the area planted with banana per banana growing household was highest in Sengerema and Geita both had (0.31 ha), followed by Kwimba (0.30 ha), Missungwi (0.2 ha), Ilemela (0.08 ha) and Ukerewe (0.06 ha) (Chart 3.54 and Map 3.35 and 3.36).

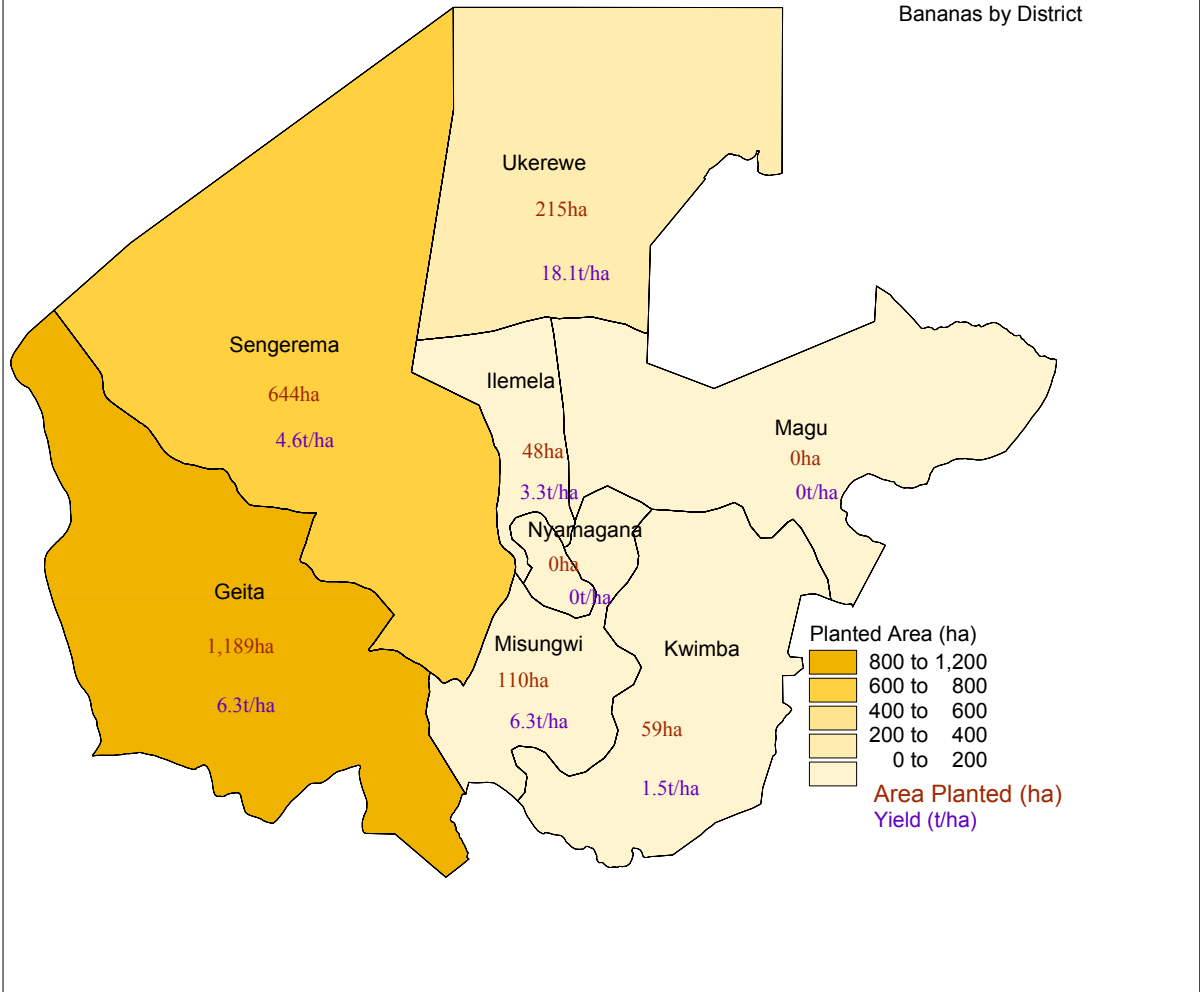
3.4.4 Guava

The total production of guava by smallholders was 354 tonnes, in terms of area planted, with a planted area of 746 ha was the fifteenth most important permanent crop grown by smallholders in the region. It was grown by 1538 households (0.4% of the total crop growing households). The average area planted with guava per household was relatively small at around 0.2 ha per guava growing household, and the average yield obtained by smallholders was 120 kg/ha from a harvest area of 354 hectares



Ukerewe district has the largest planted area of guava in the region (708 ha, 94.9%) followed by Kwimba district (32 ha, 4.2%), Geita (2 ha 0.2%), Missungwi (1 ha 0.1%), there was no guava planted in Magu and Sengerema district (Chart 3.55)

MAP 3.35 MWANZA
Planted Area and Yield of Bananas by District



MAP 3.36 MWANZA
Area Planted per Bananas Growing Household by District

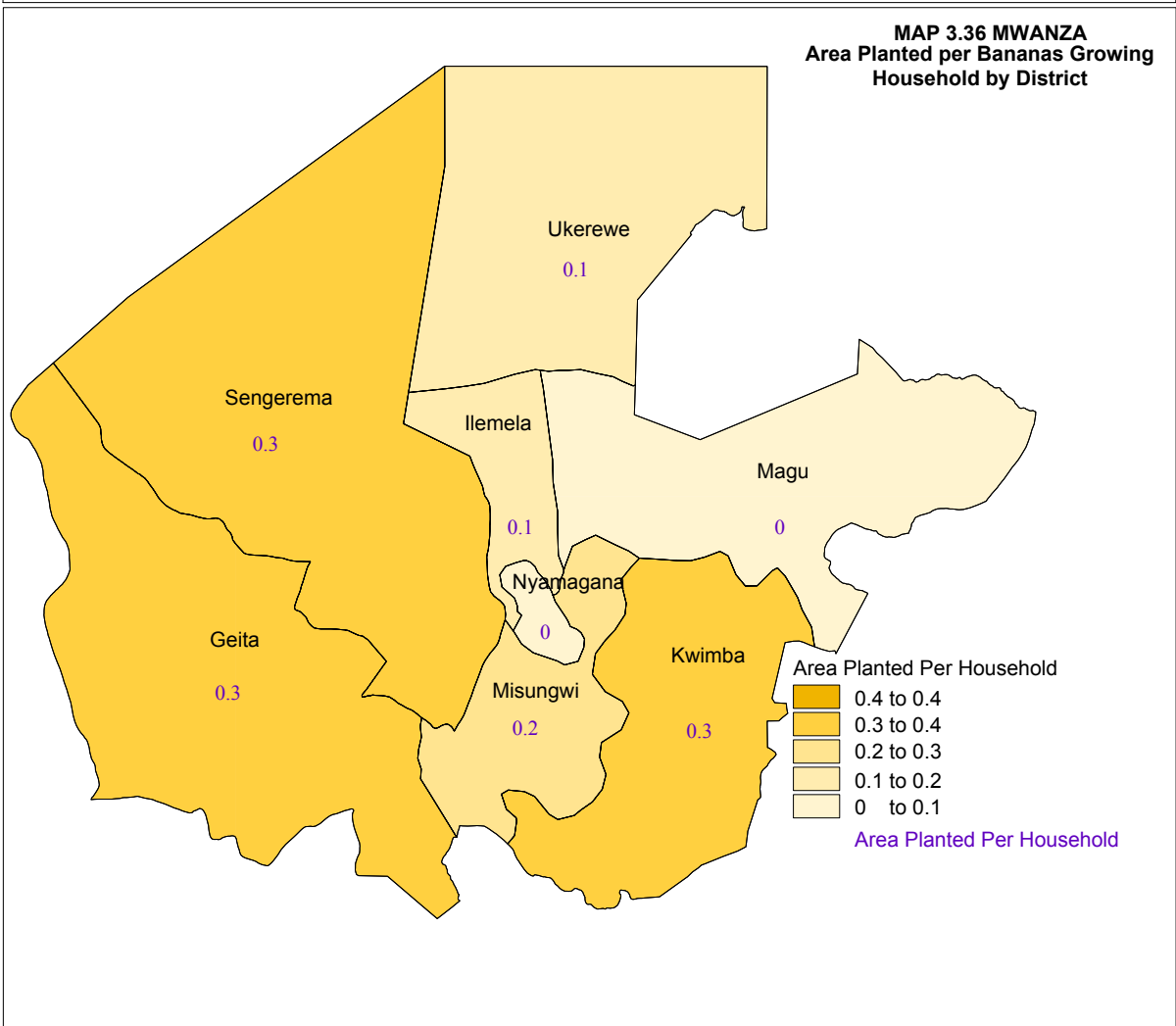


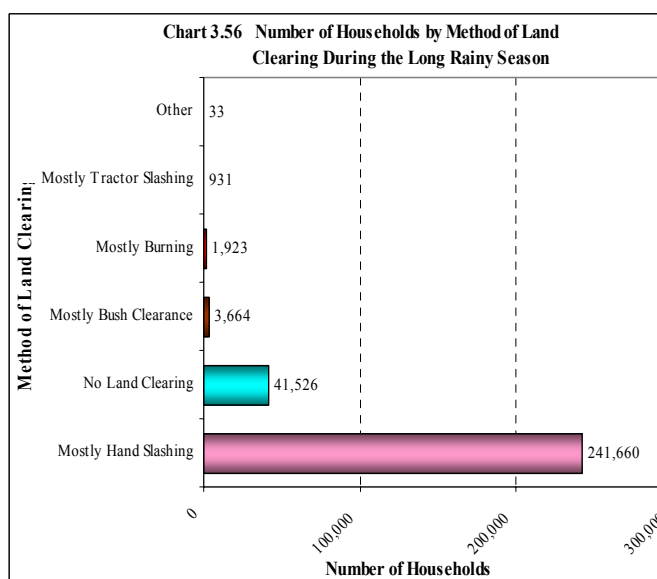
Table 3.8: Land Clearing Methods

Method of Land Clearing	Long Rainy Season			Short Rainy Season			Total		
	Number of Households	Area Planted	%	Number of Households	Area Planted	%	Number of Households	Area Planted	%
Mostly Hand Slashing	241,660	61,754	89.0	281,454	388,627	88.7	523,114	450,381	88.8
No Land Clearing	41,526	4,916	7.1	25,492	29,841	6.8	67,018	34,757	6.9
Mostly Bush Clearance	3,664	1,741	2.5	9,191	11,782	2.7	12,855	13,523	2.7
Mostly Burning	1,923	900	1.3	4,653	6,545	1.5	6,576	7,445	1.5
Mostly Tractor Slashing	931	65	0.1	945	1,065	0.2	1,876	1,130	0.2
Other	33	0	0.0	223	101	0.0	256	101	0.0
Total	289,737	69,376	100.0	321,958	437,961	100.0	611,695	507,337	100.0

3.5 Inputs/Implements Use

3.5.1 Methods of Land Clearing

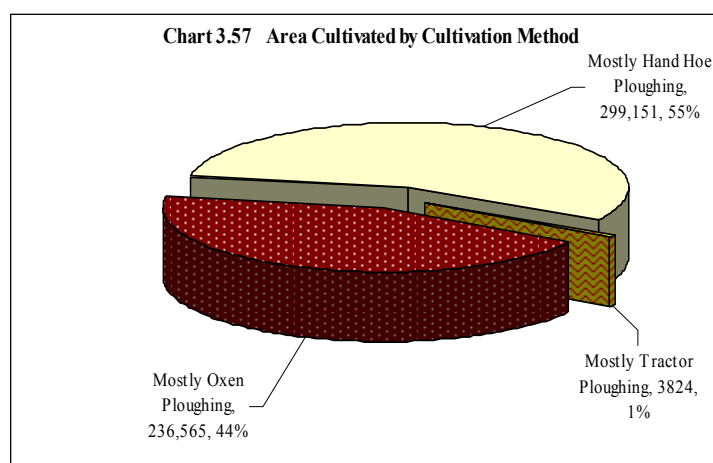
Land clearing is a common pre-tillage operation practiced by most farmers in the region. Land clearing is divided into two categories: bush clearing, which by definition implies either expansion into virgin areas or into areas which have been left fallow for a long period. Other categories includes burning, hand slashing or tractor slashing, are normally an annual clearing exercise to remove vegetation growth from the previous season.



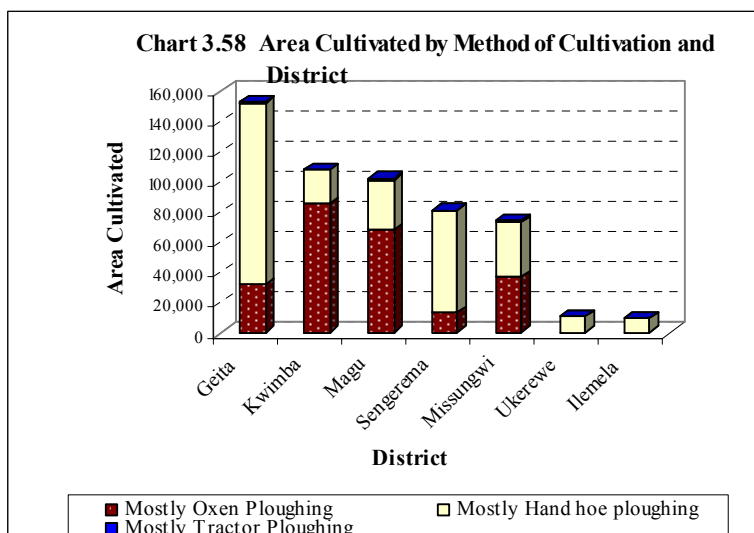
Hand slashing is the most widespread method used for land clearing. The area cleared by hand slashing in the region during the long rainy season was 61,754 ha which represented 89.0 percent of the total planted area. Bush clearance, burning and tractor slashing are less important methods for land clearing and they represent 2.5, 1.3 and 0.1 percent respectively (Table 3.8).

3.5.2 Methods of Soil Preparation

Hand cultivation is the most common method used for soil preparation as it was used in an area of 299,151 ha which represented 55 percent of the total planted area, followed by ox-ploughing (236,565 ha, 44%) and tractor ploughing (3,825 ha, 1%). Slightly more hand cultivation was used during short rainy season at 81.2 percent against 18.8 percent for the long rainy season, whereas, oxen and tractor ploughing was more common in the short rainy season with 33.5 percent and 0.6 percent respectively. For the long rainy season the corresponding percentages are 10.3 and 0.07 respectively.



In Mwanza region, Kwimba district has the largest planted area cultivated with oxen (85,785 hectares, 36.3%) followed by Magu (67,965 ha, 28.7%), Missungwi (37,126 ha, 15.7%), Geita (32,070 ha, 13.6%), Sengerema (13,149 ha, 5.6%), Ilemela (249 ha, 0.1%) and Ukerewe (221 ha, 0.1%).

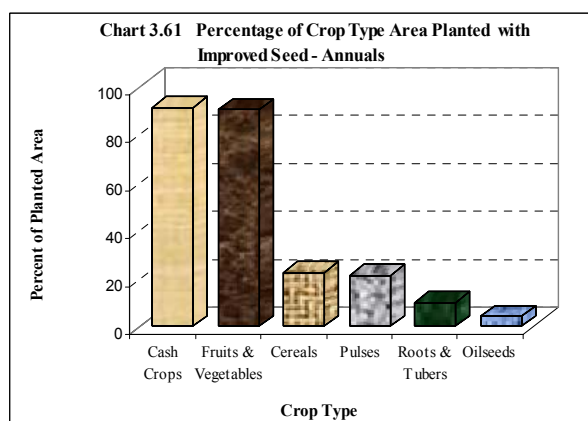
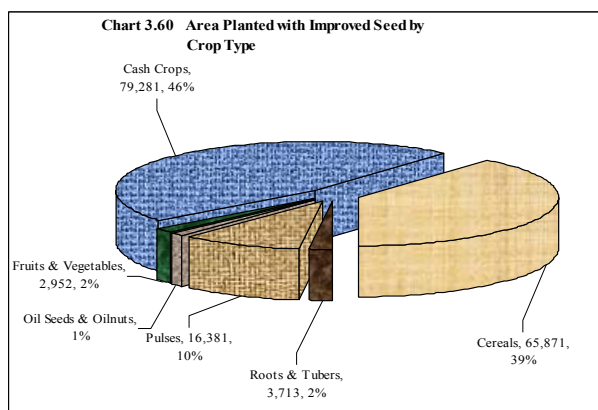
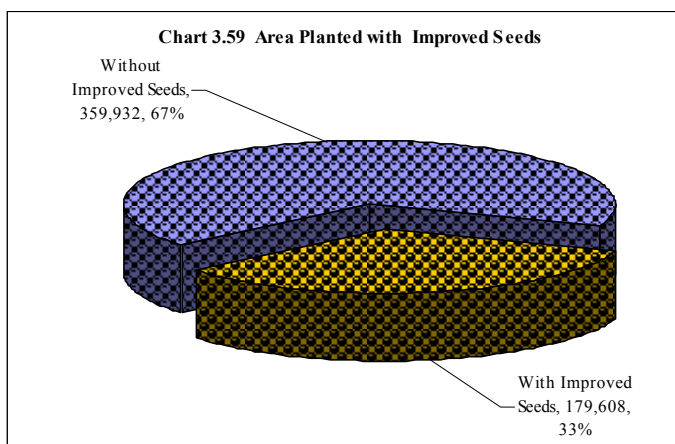


3.5.3 Improved Seeds Use

The planted area using improved seeds was estimated at 179,608 ha which represents 33 percent of the total planted with the annual crops and vegetables area. The percentage use of improved seed in the short rainy season was percent, and higher than the corresponding percentage uses for the long rainy season 9.5 percent.

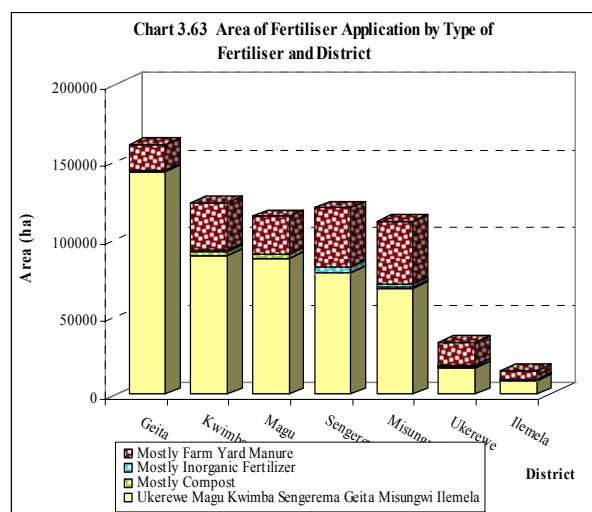
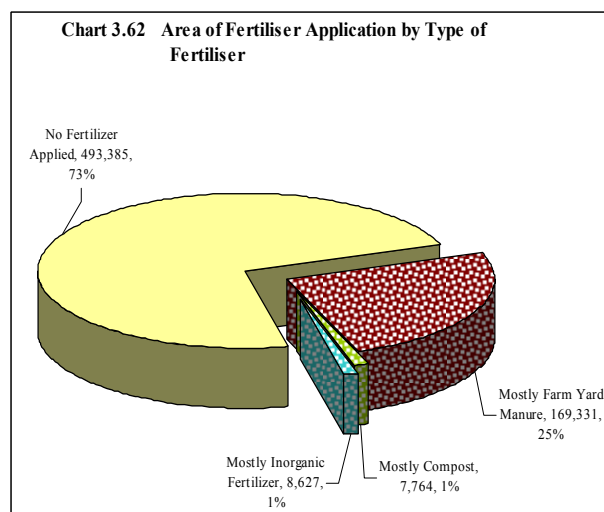
Cash crops had the largest area planted with improved seeds (79,281 ha, 46.7% of the area planted with improved seeds) followed by cereals (65,871 ha, 38.8%), pulses (16,381 ha, 9.6%), roots and tubers (3,713 ha, 2.2%), fruit & vegetables (2,952 ha, 1.7%) and oil seeds (1,699 ha, 1.0%) (Chart 3.60).

However, the use of improved seed in cash crops and fruit and vegetables is much greater than in other crop types (91.2% and 90.3% respectively), only 4.2 percent of the planted area for oil seed crops used improved seed (Chart 3.61).



3.5.4 Fertilizer Use

The use of fertilisers on annual crops is very small with a planted area of only 185,722 ha (27% of the total planted area in the region). The planted area without fertilisers for annual crops was 549,417 hectares representing 73 percent of the total planted area with annual crops. Of the area planted with fertiliser application, farm yard manure was applied to 169,331 ha which represents 25 percent of the total planted area (91% of the area planted with fertiliser application in the region). This was followed by inorganic fertilizer (8627 ha, 4.6%) and compost (7,764) representing only 4.2 percent of the area planted with fertilizers.



The highest percentage of the area planted with fertilizer (all types) was in Geita district (23%) followed by Sengerema (22%), Magu (18%), Kwimba (14%), Missungwi and Ukerewe (9% each) and Ilemela (3%) (Table 3.9).

Table 3.9 Planted Area (ha) by Type of Fertiliser Use and District during- both Rainy Seasons.

District	Fertilizer Use			Total	No Fertilizer Applied
	Mostly Farm Yard Manure	Mostly Compost	Mostly Inorganic Fertilizer		
Ukerewe	16,288	1,065	78	17,431	17,168
Magu	30,187	2,450	853	33,490	87,954
Kwimba	24,408	2,129	115	26,652	89,692
Sengerema	37,854	210	3,546	41,610	78,492
Geita	40,664	1,193	1,714	43,572	143,386
Misungwi	14,806	253	1,527	16,585	68,094
Ilemela	5,124	465	794	6,382	8,597
Total	169,331	7,764	8,627	185,722	493,385

Most annual crop growing households do not use any fertiliser (approximately 194,495 households, 83%). The percentage of the planted area with applied fertiliser was highest for roots and tubers (70% of the area planted with roots and tubers during the long rainy season had an application of fertilizers). This was followed by cereals (19%), pulses (8%), fruit and vegetables (2.1%) cash crops and oil seeds (0.3%). (Table 3.10). and Map 3.37

Table 3.10: Number of Crop Growing Households and Planted Area By Fertilizer Use and District -Long Rainy Season

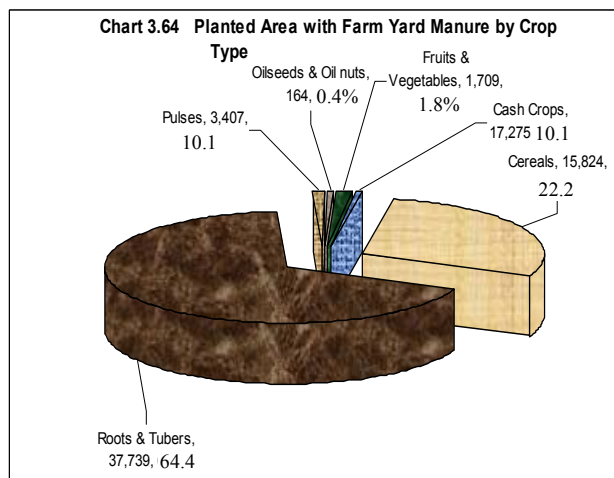
District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Ukerewe	13,856	13,406	1,312	910	167	71	17,048	13,655	32,383	28,042
Magu	4,194	6,142	1,918	1,511	244	101	24,902	24,210	31,257	31,964
Kwimba	1,735	5,047	102	31	103	10	24,439	32,316	26,379	37,404
Sengerema	7,515	12,807	0	0	731	535	49,317	42,224	57,563	55,565
Geita	1,263	2,459	167	27	795	1,026	49,012	47,568	51,237	51,080
Missungwi	1,931	1,766	151	84	658	1,071	22,463	25,129	25,204	28,049
Ilemela	2,563	2,745	321	259	680	475	7,313	5,347	10,878	8,826
Total	33,057	44,372	3,971	2,822	3,378	3,289	194,495	190,447	234,901	240,929

Farm Yard Manure Use

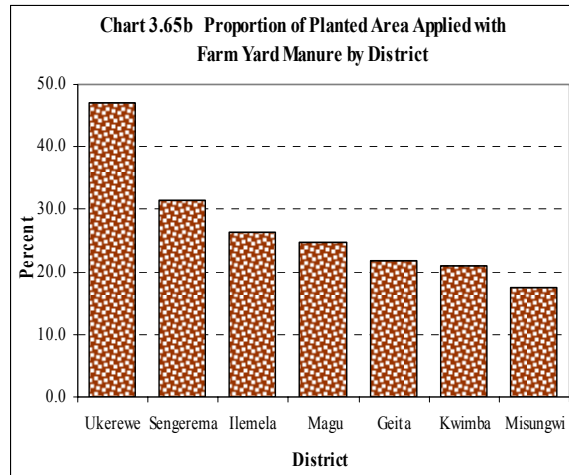
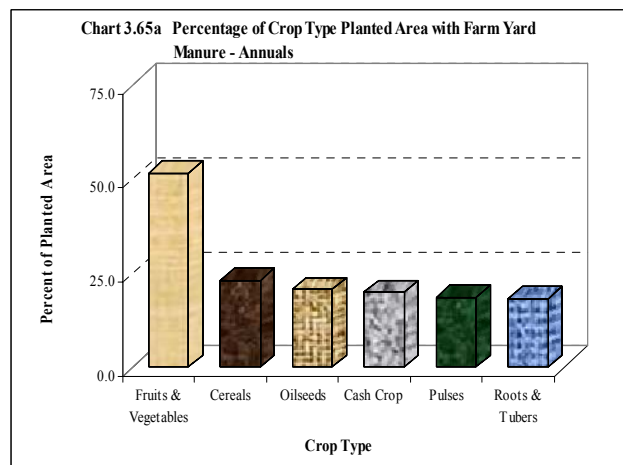
The total planted area applied with farm yard manure in Mwanza region was 169,332 ha. The number of households that applied farm yard manure in their annual crops during the long rainy season was 33,057 and it was applied to 44,372 ha representing 26 percent of the total area planted during that season (Table 3.10).

Roots & tubers had the highest percent of the total area planted with applied farm yard manure (64.4%), followed by cereals (22.2%), Pulses (10.1%), fruits & vegetables (1.8%). Cash crops, (0.7%), oil seeds (0.4%).

However, fruit and vegetables had the highest percent of the proportion of planted area with farm yard manure (51.5% of the total area of fruit and vegetables in Mwanza). This was followed by cereals (23%), oil seeds (20.6%), cash crops (19.9%), pulses (18.6%) and root & tubers (18.2%).

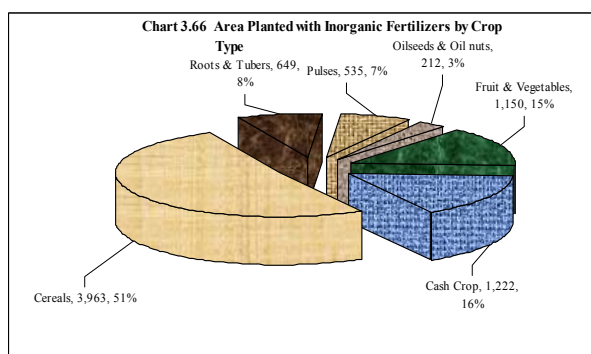


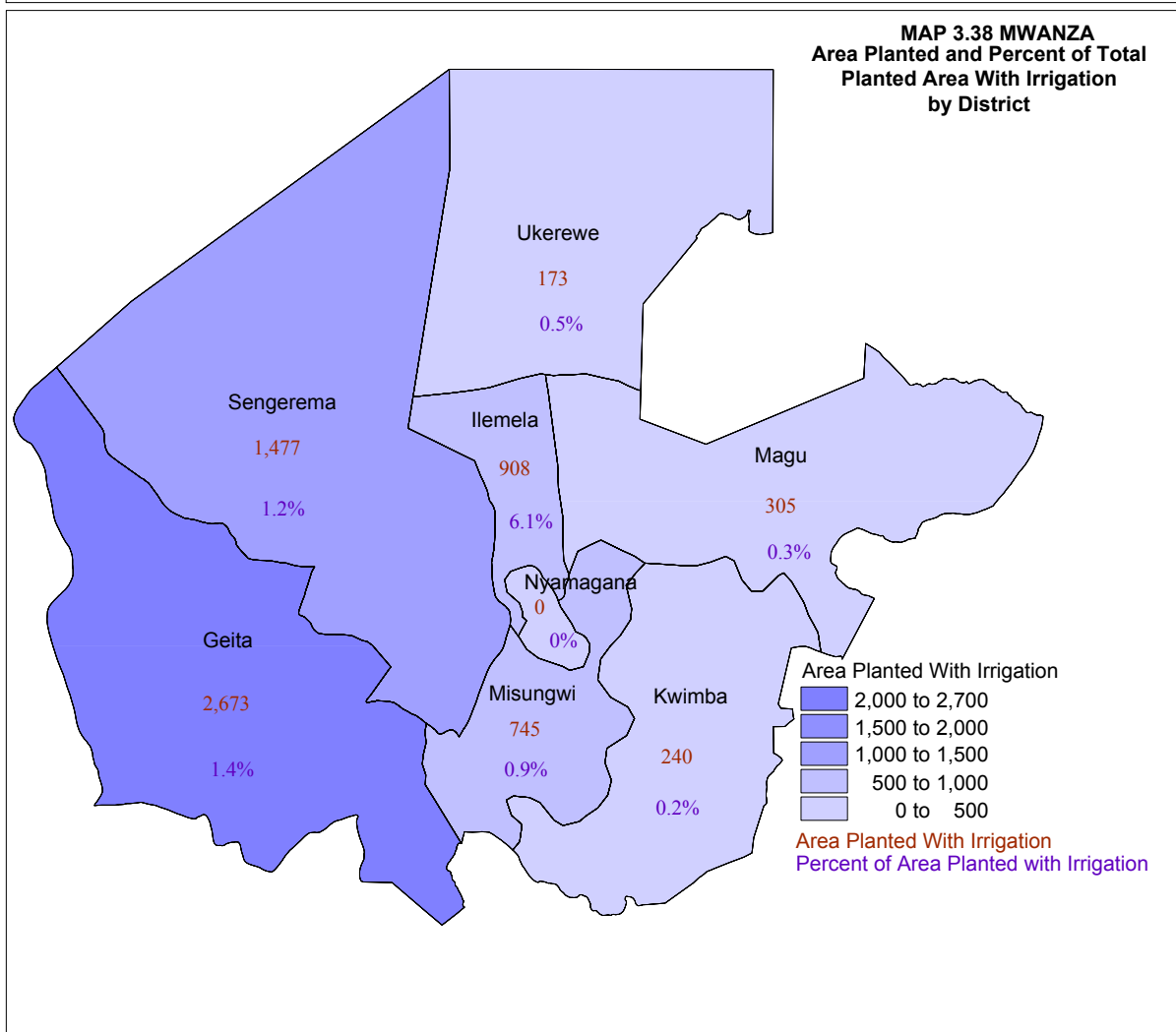
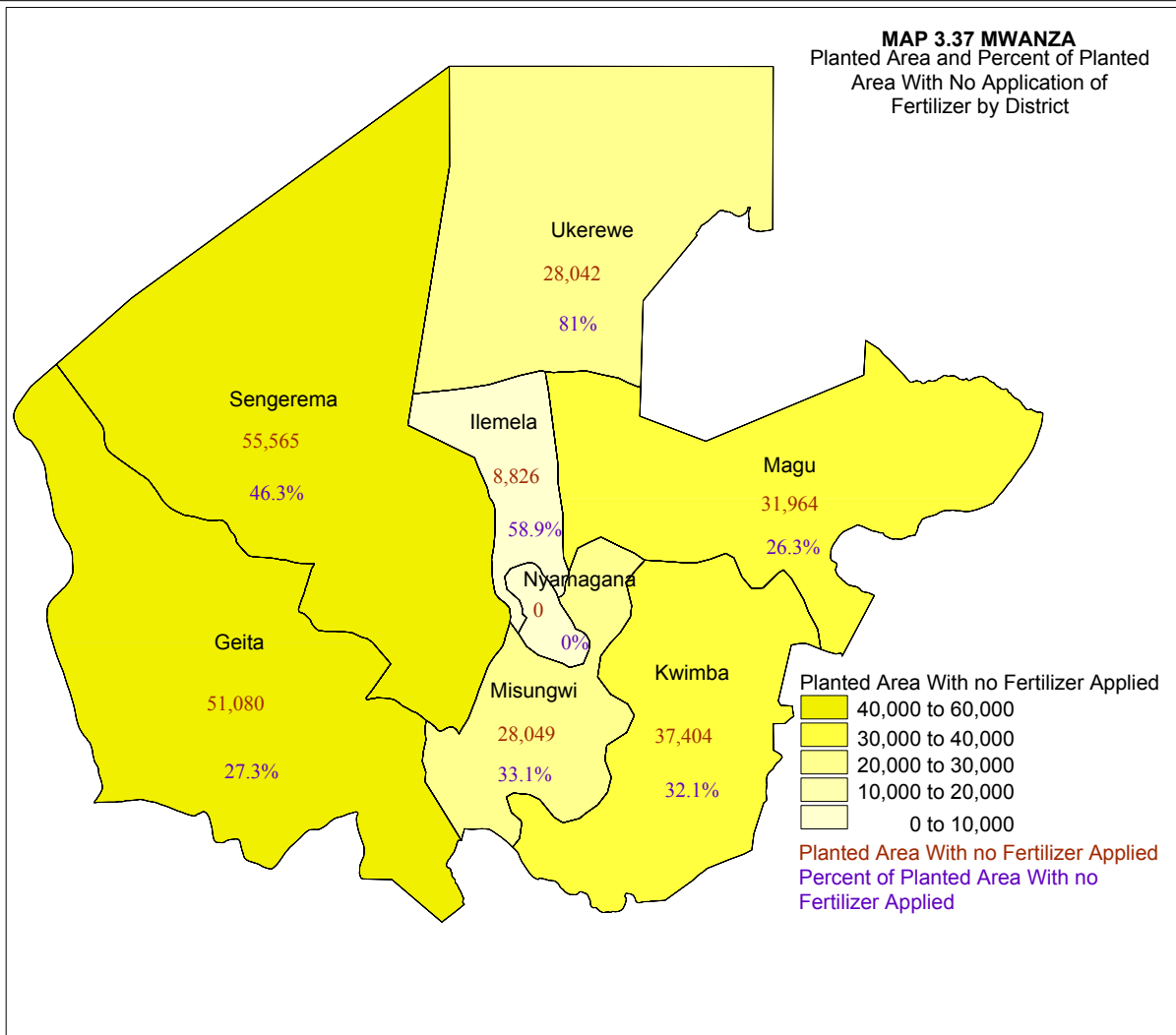
A higher percent of the planted area in Ukerewe was with Farm Yard Manure (47.1% of the total planted area in the district), followed by Ilemela (34.2%), Sengerema (31.5%), Magu (24.9%), Geita (21.8%), Kwimba (21.0%) and Misungwi (17.5%) (Chart 3.65b and Map 3.38).



Inorganic Fertiliser Use

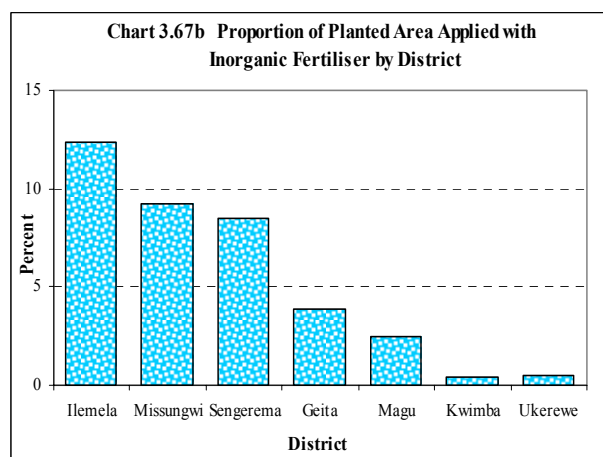
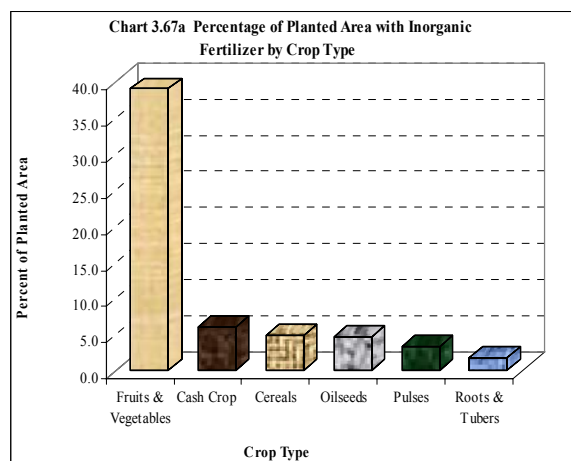
The total planted area applied with inorganic fertilisers in Mwanza region was 7,731 ha which represents 4.9 percent of the total planted area with annuals in the region and 5.0 percent of the total planted area with fertiliser. The number of households that applied inorganic fertilizer on their annual crops during the long rainy season was 3,378 and it was applied to 3,289 ha representing 1.4 percent of the total area planted during that season (Table 3.10).





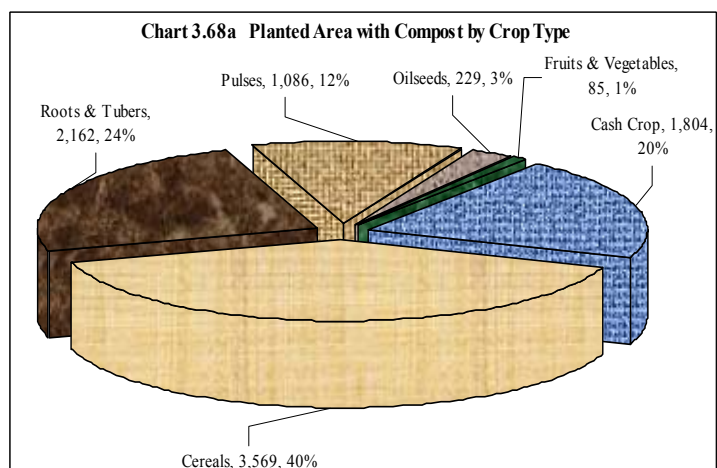
The largest area applied with inorganic fertilizers was on cereals (51% of the total area applied with inorganic fertilizers), followed by cash crops (16%), fruit and vegetables (15%) and roots and tubers (8%), pulses (7%) and oil seeds (3%). (Chart 3.66). However, the proportion of fruit and vegetables with inorganic fertilizers was 39.1 percent higher than other crop types, followed by cash crops (6.0%), cereals (4.9%), and oil seeds (4.8%), pulses (3.8%) and roots & tubers (1.9%) (Chart 3.67a).

The percent of land in Ilemela with inorganic fertilisers is higher than any other district in the region (5.3% of the total planted area in the district), followed by Missungwi (1.8%). Other districts used less than 1 percent (Chart 3.67b).

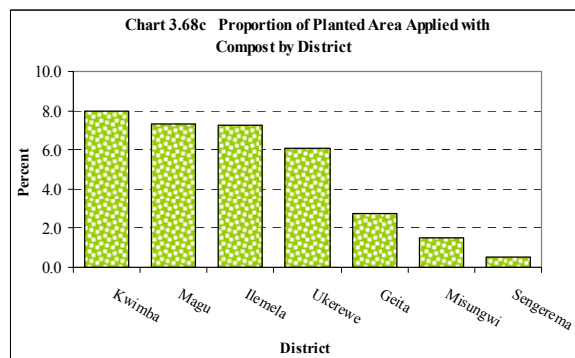
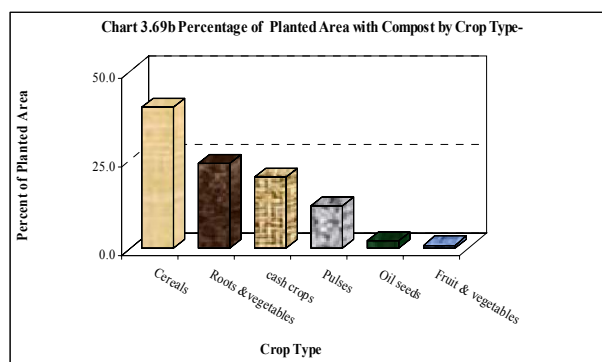


Compost Use

The total planted area applied with compost was 8,935 ha which represents only 1.3 percent of the total planted area with annual crops in the region and 5.6 percent of the total planted area with fertiliser in the region. The number of households that applied compost manure on their annual crops during the long rainy season was 3,971 and it was applied to 2,822 ha representing 1.6 percent of the total area planted (Table 3.10 and Chart 3.68a). The proportion of the area applied with compost was low for each type of crop; however the distribution of the total area using compost manure shows that 40 percent of this area was cultivated with cereals, followed by roots & tubers (24%), cash crops (20%), pulse (12%) and fruits & vegetables (0.9%). (Chart 3.68a). Map 3.39



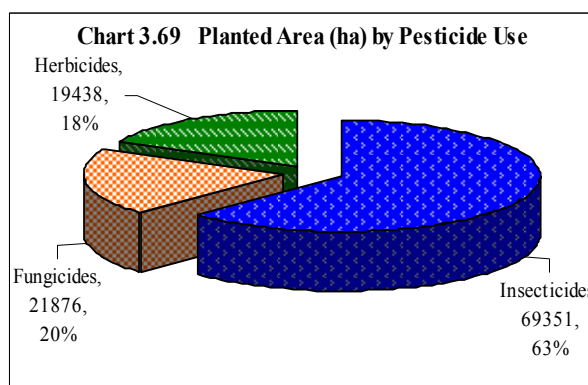
The highest percent of planted area with compost was in Kwimba (8.0% of the total planted area in the district), and this is closely followed by Magu and Ilemela both had (7.3%), Ukerewe (6.1%), Geita (2.7%) Other districts, like Sengerema used little compost (0.5%) (Chart 3.69b).



Pesticide Use

Pesticides are chemicals used for controlling insects, diseases and weeds. This section analyses the use of these chemicals by smallholders on both annual and permanent crops in the region. Pesticides were applied to a planted area of 110,665 ha of annual crops and vegetables.

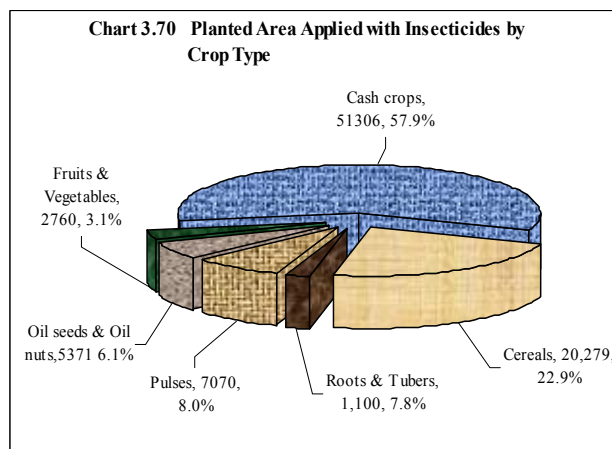
Insecticides are the most common pesticide used in the region (63% of the total area applied with pesticides). This was followed by fungicides (20%) and herbicides (18%) (Chart 3.69).

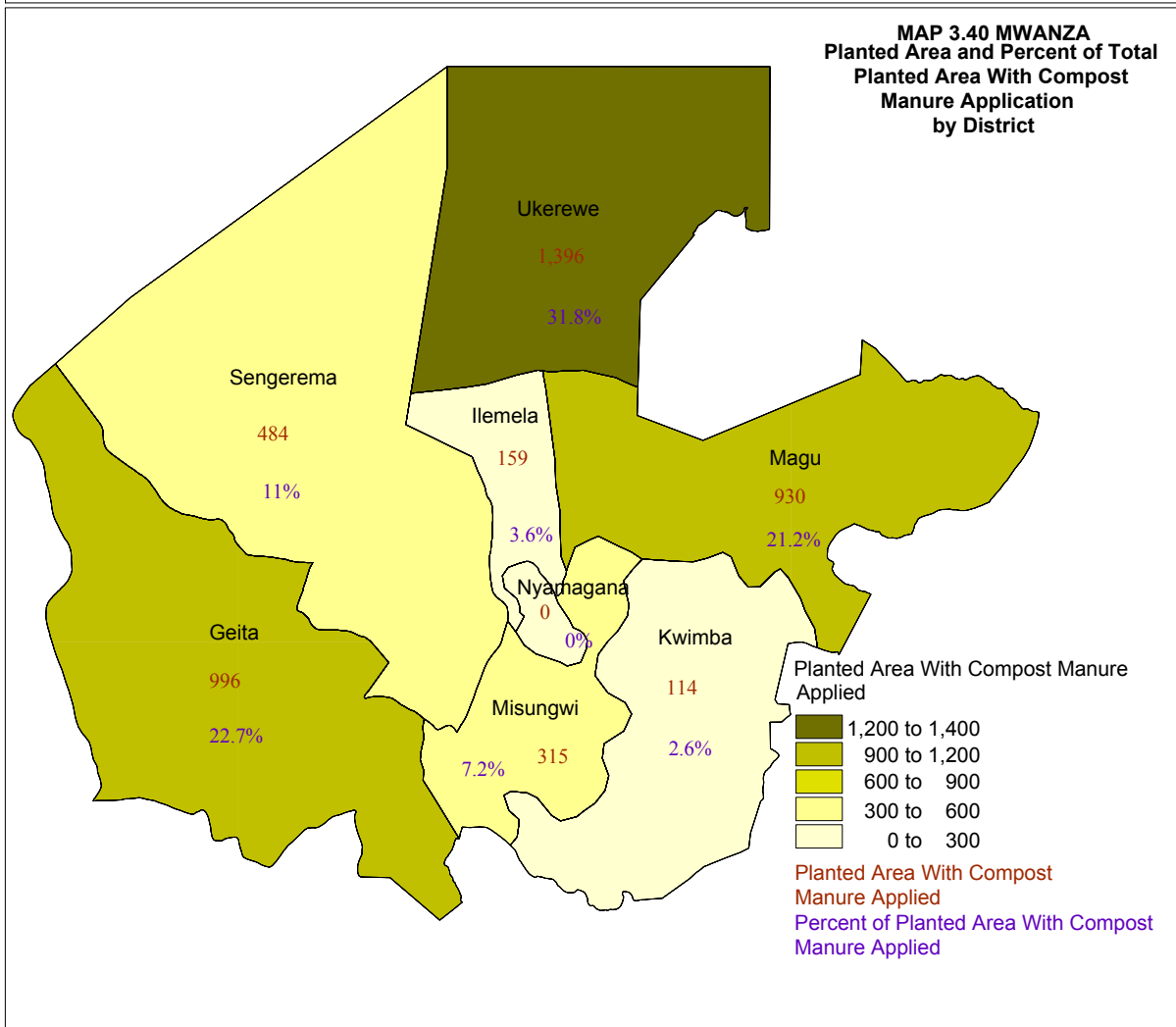
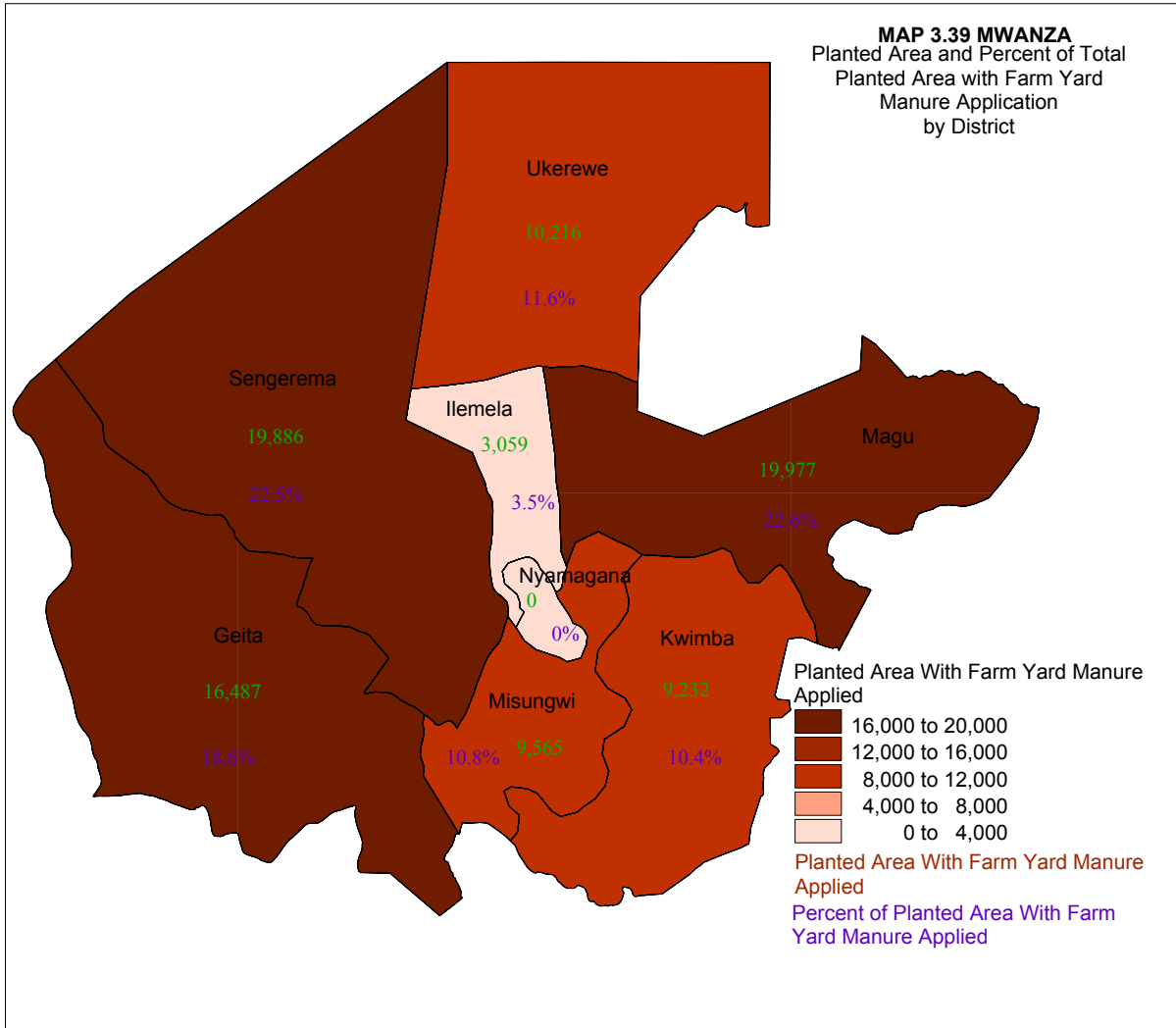


Insecticide Use

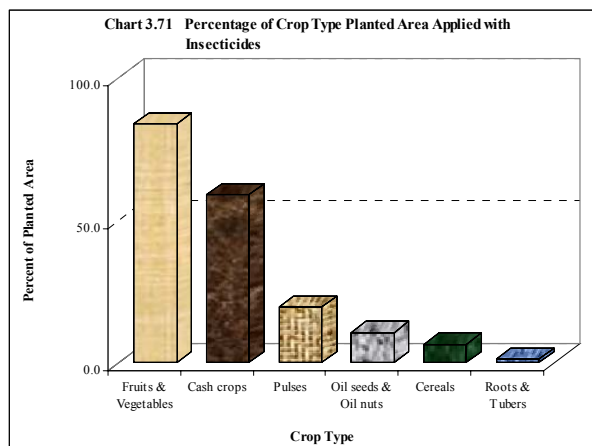
The planted area applied with insecticides was estimated at 88,612 ha which represented 13.2 percent of the total planted area of annual crops and vegetables.

Cash crops had the largest planted area applied with insecticides (51,306 ha, 57.9% of the total planted area with insecticides) followed by Cereals (20,279 ha, 22.9%), pulses (7,070 ha, 8.0%), roots & tubers (1,100 ha, 7.8%) oil seeds & nuts (5,371 ha, 6.1%) and fruits & vegetables (2,760 ha, 3.1%). (Chart 3.70). Map 3.40

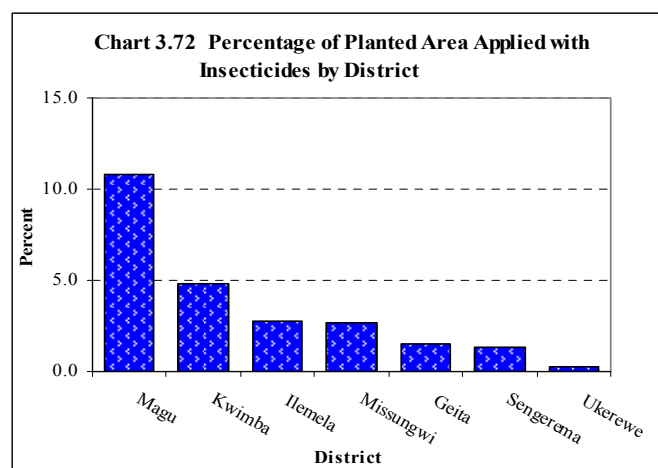




However, the proportion of planted area applied with insecticides was largest for fruits/vegetables and cash crops being 84.0% for fruits/vegetables and 59.0% for cash crops. Only 1.0 percent the area planted with roots and tubers was applied with insecticides (Chart 3.71). Annual crops with more than 50 percent insecticide use were spinach, cucumber, cotton, water melon, tomatoes, onions, cabbage, field peas, and chillies.

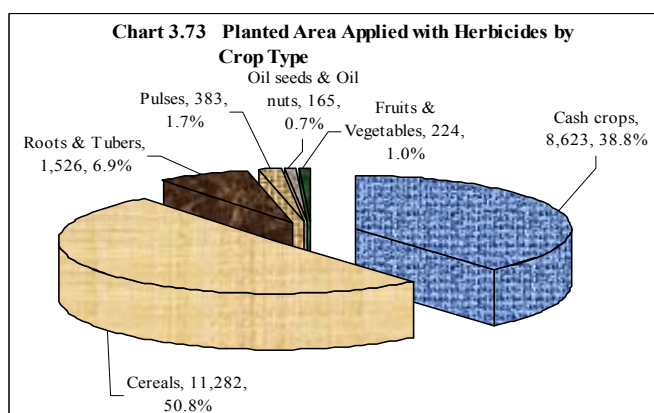


Magu had the highest percent of planted area with insecticides (29.2% of the total planted area with annual crops in the district). This was followed by Ilemela (12.5%), Sengerema (12.3%), Missungwi (8.3%), Geita (7.9%) and Kwimba (7.5%). The smallest percentage use was recorded in Ukerewe district (1.3%) (Chart 3.72).

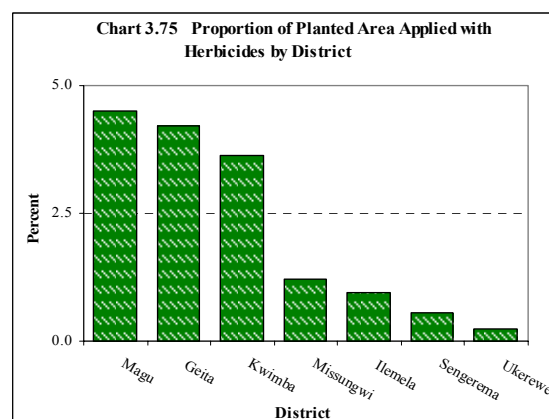
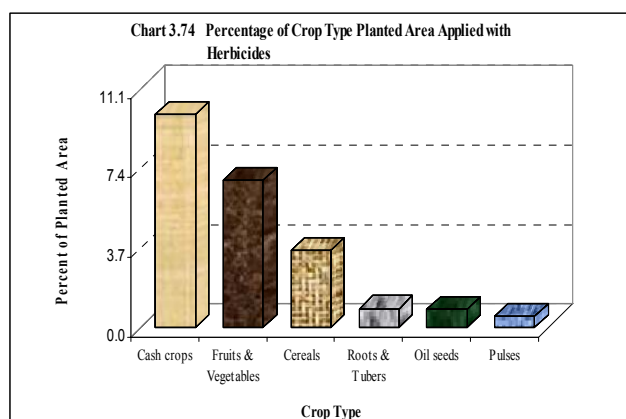


Herbicide Use

The planted area applied with herbicides was 22,203 ha which represented 3.2 percent of the total planted area annual crops and vegetables. Cereals had the largest planted area applied with herbicides (11,282 ha, 50.8%) followed by cash crops (8,623 ha, 38.8%), root & tubers (1,526 ha, 6.9%), pulses (383 ha, 1.7%), fruits & vegetables (224 ha 1.0%) and oil seeds (165ha, 0.7%) (Chart 3.73).



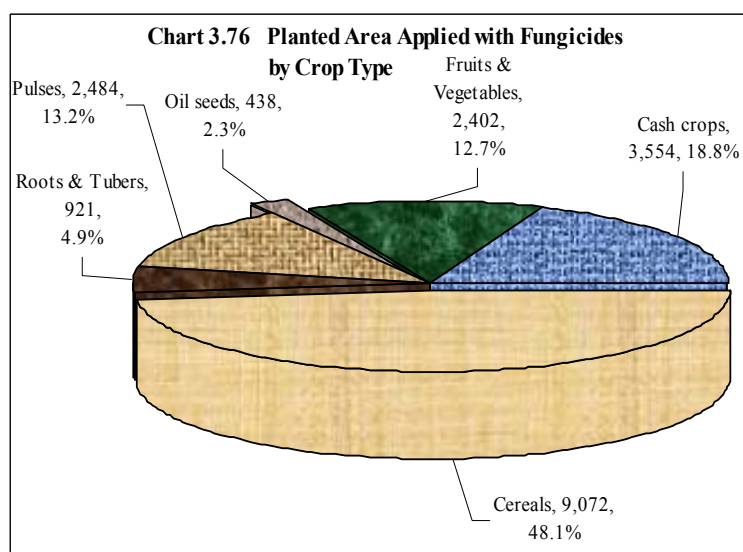
However, the proportion of the planted area applied with herbicides was greater for cash crops and fruit and vegetables (9.9% for cash crops and 6.8% for fruits/vegetables). Only 0.5 percent of pulses were applied with herbicides



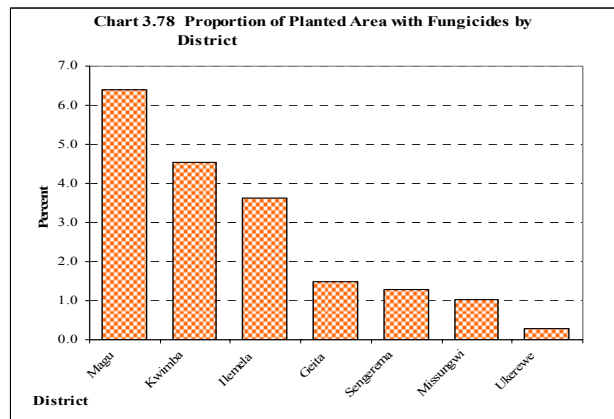
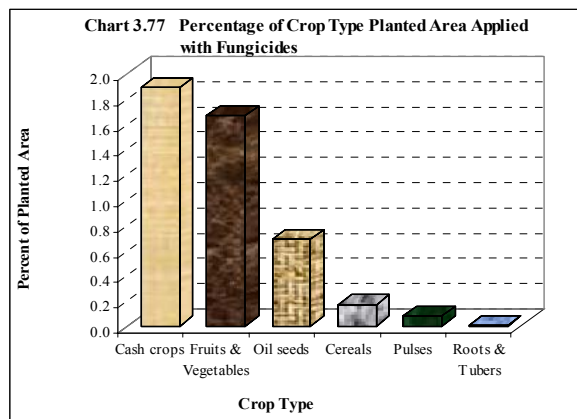
Magu had the highest percent of planted area with herbicides (4.5% of the total planted area with annual crops in the district). This was followed by Geita (4.2%), Kwimba (3.6%), Missungwi (1.2%) and the remaining districts had less than (1%). (3.75).

3.5.5.3 Fungicides Use

The planted area applied with fungicides was 18,872 ha which represented 2.8 percent of the total planted area for annual crops and vegetables. The percentage use of fungicides in the short rainy season at (3.4%) was higher than the corresponding percentage for the long rainy season (1.4%). Cereals had the largest planted area applied with fungicides (9,072ha, 48.1%) followed by cash crops (3,554 ha, 18.8%), pulses (2,484 ha, 13.2%), fruits and vegetables (2,402 ha, 12.7%), roots and tubers (921 ha, 4.9%) and oil seeds (438 ha, 2.3%) (Chart 3.76).



However, the percentage use of fungicide in cash crops and fruits & vegetables was much greater than in other crop types (1.9% and 1.7% respectively), while only 0.01 percent of roots & tubers was applied with fungicides (Chart 3.77). Magu had the highest percent of planted area with insecticides (6.4% of the total planted area with annual crops in the district). This was followed by Kwimba (3.4%) and Ilemela (3.6%). The smallest percentage use was recorded in Ukerewe district (0.3%) (Chart 3.78).



3.5.6 Harvesting Methods

The main harvesting method for cereals and other crops was reported to be by hand. Very small amounts of crops were harvested by machine.

3.5.7 Threshing Methods

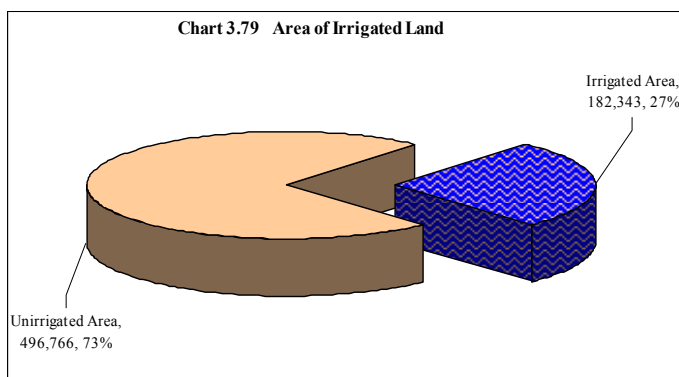
Hand threshing was the most common method used, with 56.7 percent of the total area planted with cereals during the long rainy season being threshed by hand. Draft animals, human powered tools and engine driven machines were only used on crops harvested from 0.1 percent 0.2 percent and of the total planted area respectively.

3.6 Irrigation

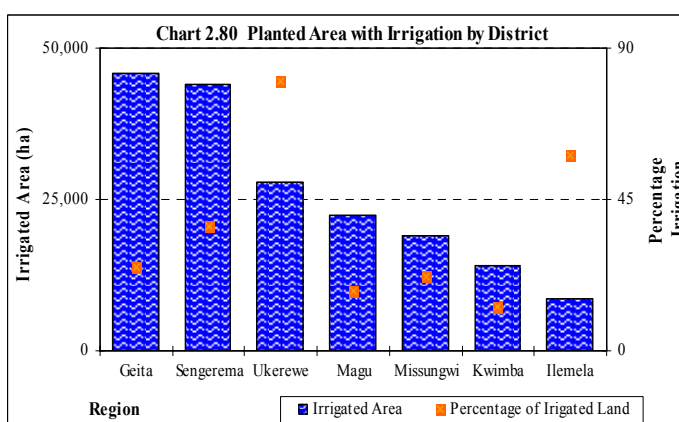
Water is the limiting factor to crop production in the majority of areas in Tanzania and without water most other agricultural practices applied to crops do not result in significant increases in yield. This section deals with the area under irrigation for different crops and the means by which water was extracted from the source and applied to the field.

3.6.1 Area Planted with Annual Crops and Under Irrigation

In Mwanza region, the area of annual crops under irrigation was 182,343 ha representing 27 percent of the total area planted (Chart 3.79). The area under irrigation during the long rainy season was 135,143 ha accounting for 56.1 percent of the total area under irrigation. In the short rainy season, 1.5 percent of the total area planted with crops was irrigated, whilst 25.3 percent of the total area planted were irrigated in the long rainy season.

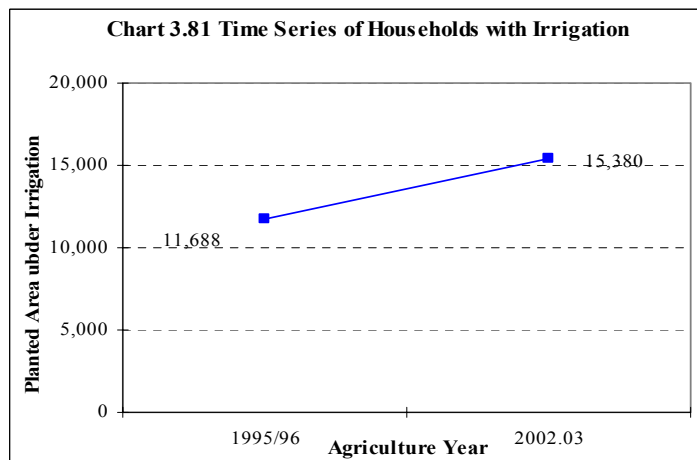


The district with the largest planted area under irrigation for annual crops was Geita (45,960 ha, 25% of the total irrigated planted area with annual crops in the region). This was closely followed by Sengerema with (44,029 ha, 24%) and Ukerewe (27,778, 15%), When expressed as



a percentage of the total area planted in each district, Ukerewe had the highest with 80% of the planted area in the district under irrigation. This was followed by Ilemela (58%), Sengerema (37%), Geita (25%), Missungwi (22%), Magu (18%) and Kwimba (13%) (Chart 3.80).

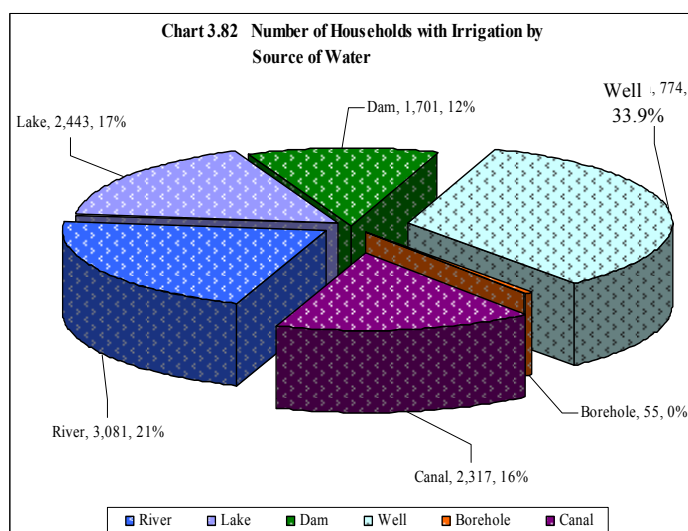
Time series of households with irrigation in Mwanza region appears to have increased over the 10 year intercensal period from 11,688 to 15,380 households



3.6.2 Sources of Water Used for Irrigation

The main source of water used for irrigation was from well (33.9% of households with irrigation). This was followed by river (21.1%) and lake (16.7%), canal (15.8%), dam (11.6%), borehole (0.4%), and piped water (0.5%).

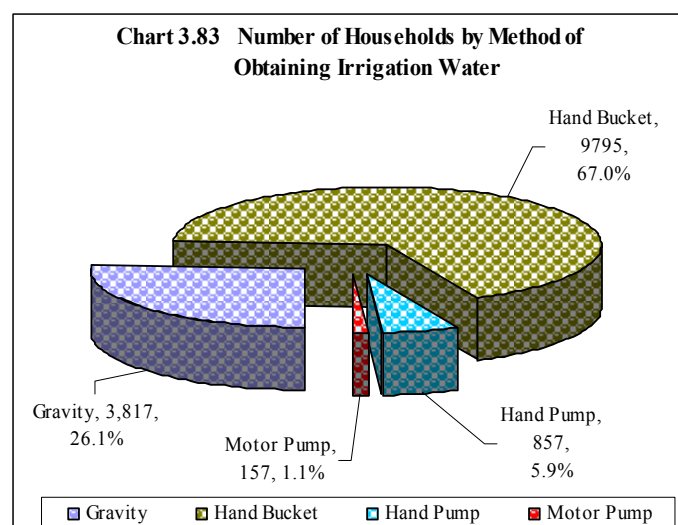
Most households using irrigation in Geita get their irrigation water from rivers and canal (both were 36 percent)



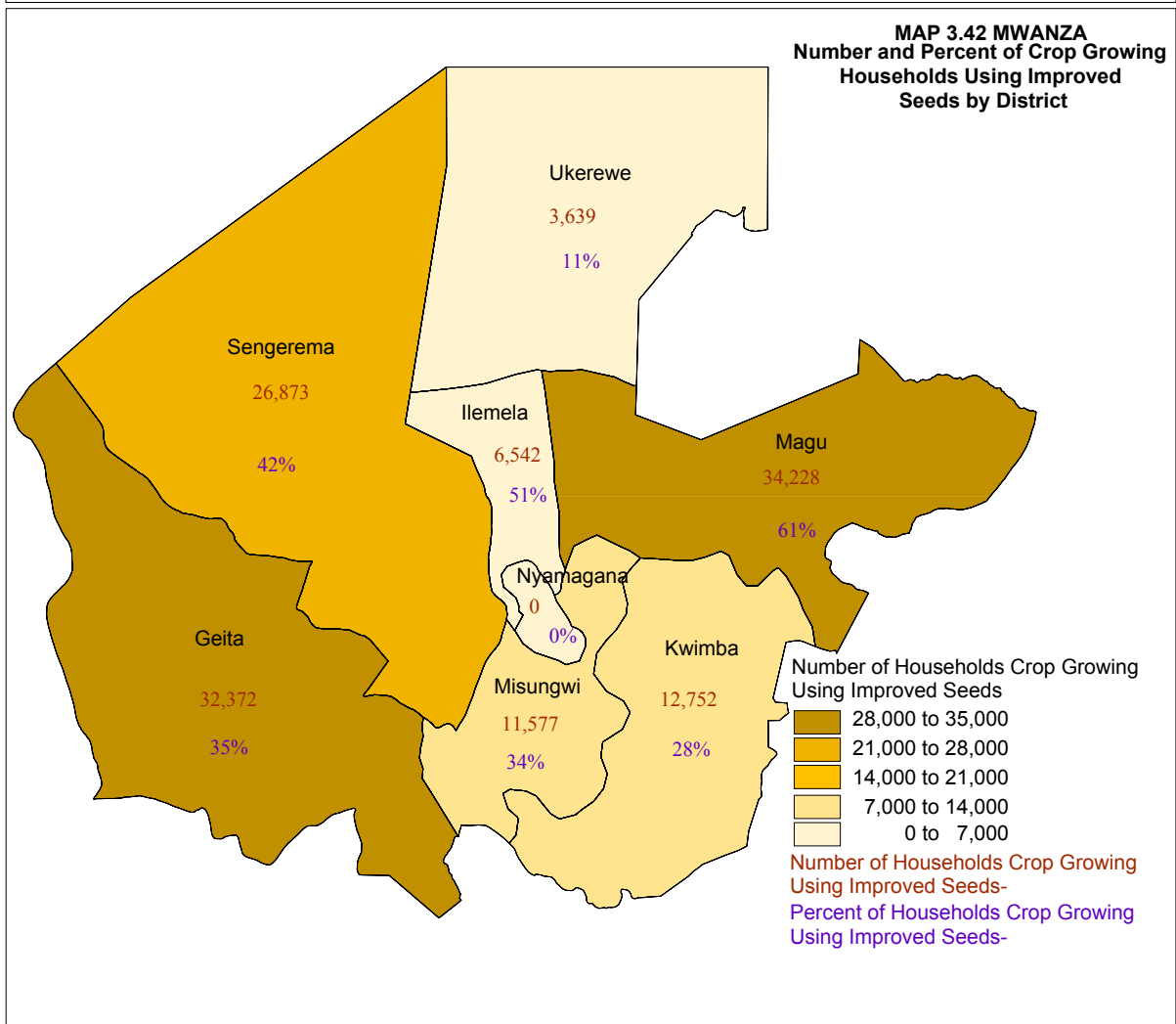
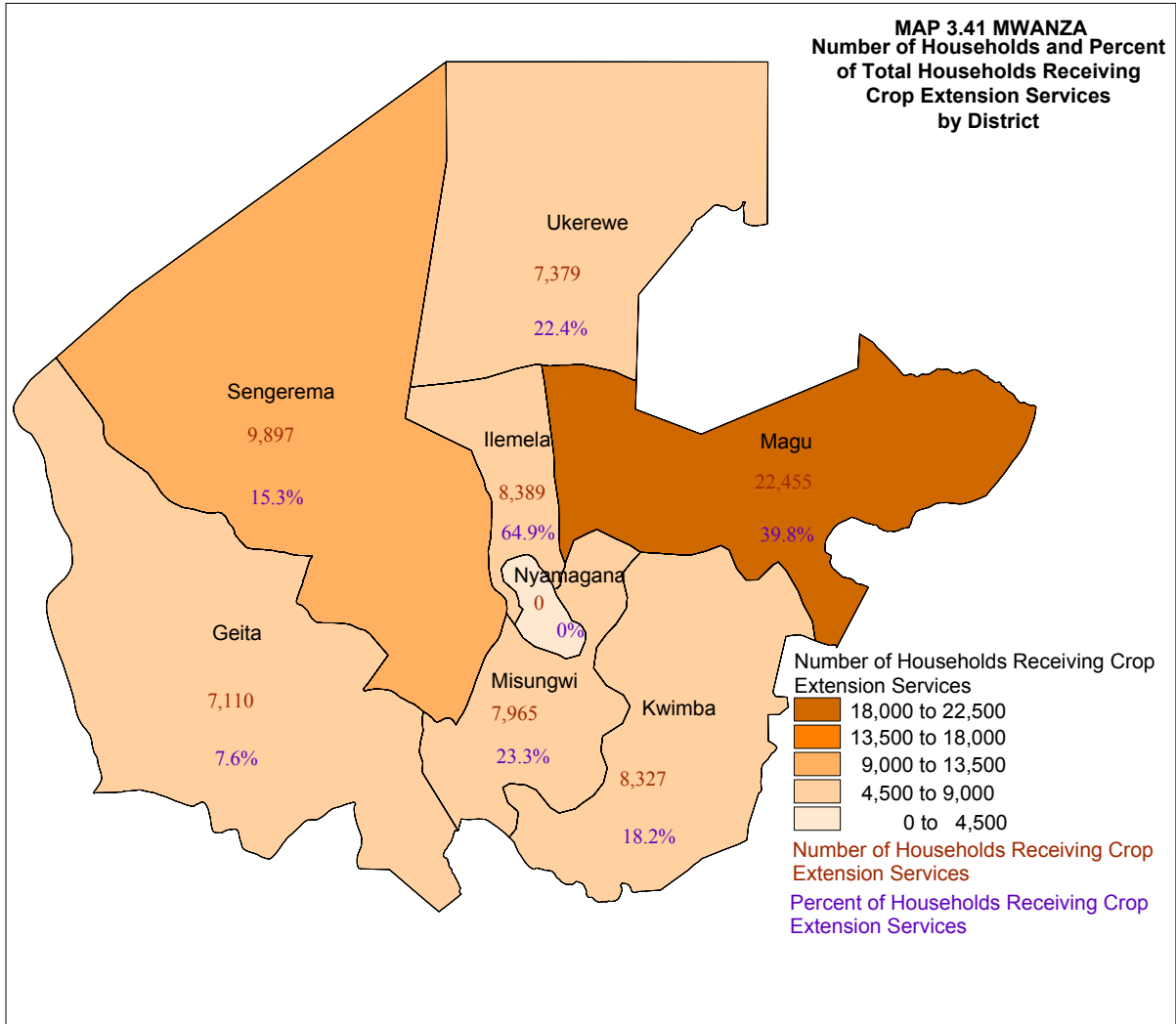
3.6.3 Methods of Obtaining Water for Irrigation

Hand Bucket was the most common method of getting water for irrigation with 67.0 percent of households using this method. This was followed by gravity with 26.1 percent of households. The remaining methods (hand pump, motor pump and others) were of minor importance (Chart 3.82).

Hand Bucket was used most in Missungwi (26.0% of the households practicing irrigation), followed by Ilemela (24.3%), Sengerema (16.2%), Magu (10.2%), Ukerewe (7.5%) and Kwimba (4.1%). Gravity was more common in Geita with 65.8 percent of households using the method to get water for irrigation, followed by Ilemela (18.6), Kwimba (5.5%), Sengerema (4.1%), Ukerewe (3.9%), Missungwi (2.1%) and Magu (0.0%).



Mp 3.41



3.6.4 Methods of Water Application

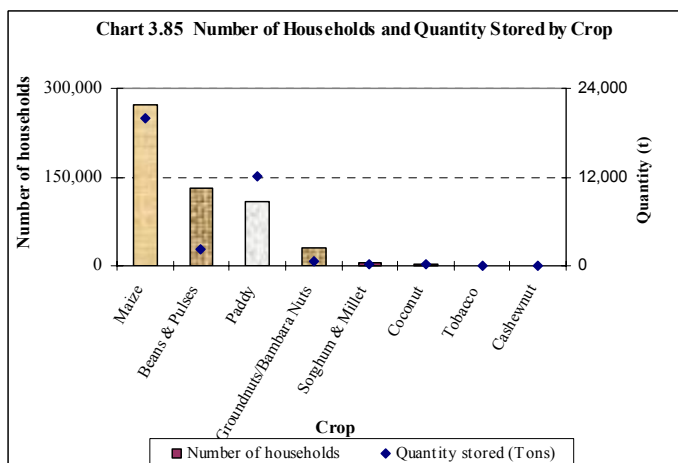
Most households used 65% of households using irrigation bucket/watering can irrigation, 65% of households using irrigation as a method of field application. This was closely followed by flood (26%), water hose and sprinkler were not widely used being 5.0% for water hose and 4% for the sprinkler.

3.7 Crop Storage, Processing and Marketing

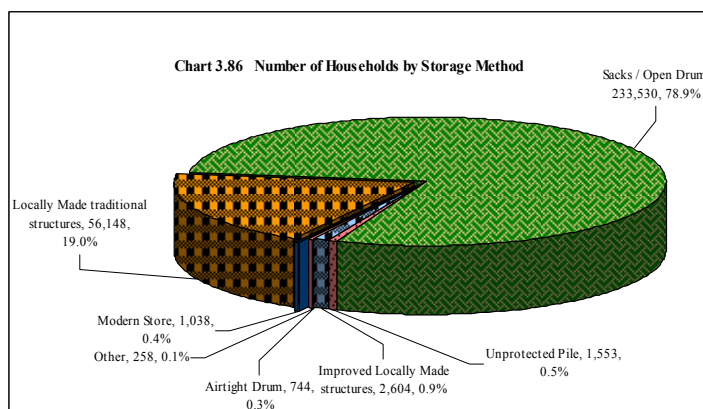
3.7.1 Crop Storage

Crop storage means keeping a crop for a certain period of time as food for the household, in order to sell at higher prices or as seed for planting in the following season.

The results for Mwanza region show that there were 338,929 crop growing households 87.3% of the total crop growing households that stored various agricultural products in the region.



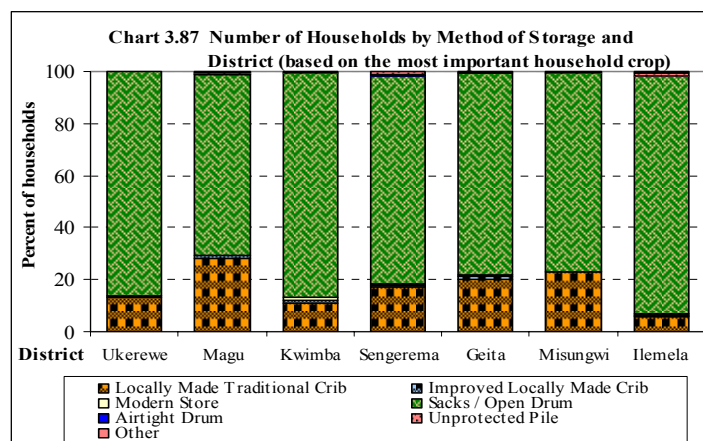
The most important stored crop was maize with 273,370 households storing 20,026 tonnes as of 1st October 2003. This was followed by beans and other pulses 130,653 households, 2,269 tonnes, paddy 109,350 households, 12,144 tonnes, sorghum and millet with 26,270 households, 1,642 tonnes and groundnuts and bambara nuts 30,368 households, 683 tonnes. Other crops were stored in very small amounts.



Methods of Storage

The number of households that stored their produce in sacks and/or open drums was 233,530 (78.9%). This was followed by locally made traditional structures 56,898 households (18.9%), improved locally made structure 2,604 (0.9%), unprotected pile 1,553 (0.5%), modern store 1,038 households (0.4%), airtight drum 744 households, (0.3%), and other 258 households (0.1%).

Sacks/Open drum were the dominant storage method in all districts with the highest percent in Ilemela and Kwimba districts of 91.4% for Ilemela and 86.5% for kwimba followed by Ukerewe (86.5%), Sengerema (79.9%), Geita (78.0%), Missungwi (76.7%) and lastly Magu (69.9%) (Chart 3.87)

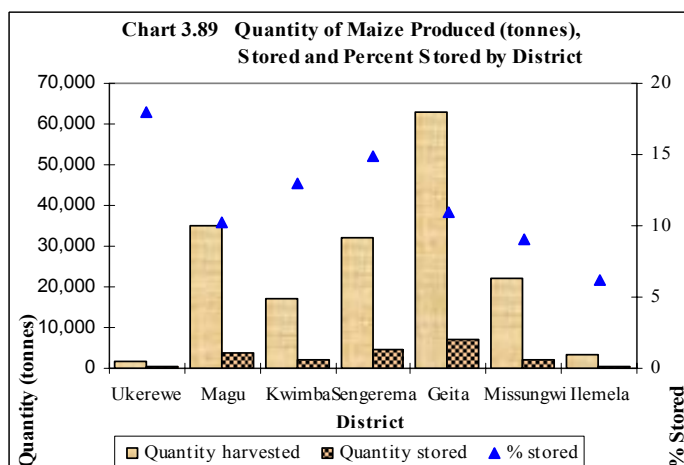
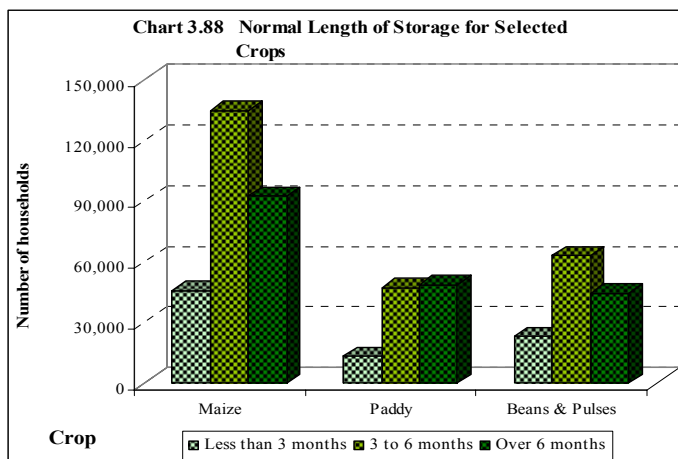


Duration of Storage

Most households (146,134 or 49% of the households storing crops) stored their produce for a period of 3 to 6 months followed by those who stored for a period of over 6 months (99,137, 34%) and those that stored their crops for a period of less than 3 months (50,475, 17%) (Chart 3.88).

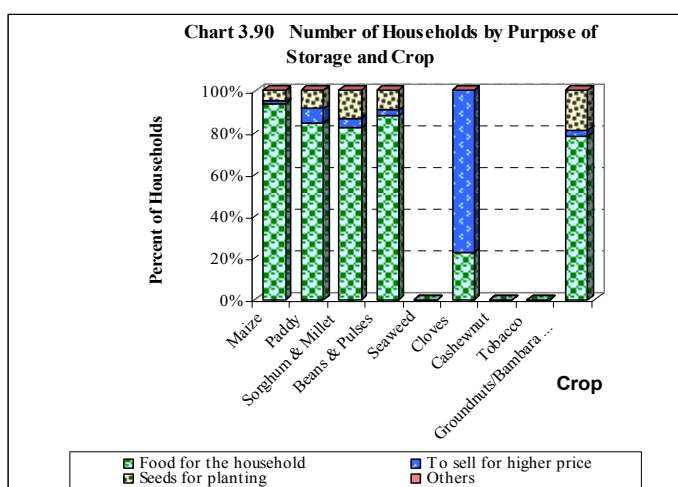
The proportion of households that stored their produce for the duration of 3 to 6 months was highest in Geita district (58.6%) followed by Ukerewe district (56.9%), Magu district (51.3%), Kwimba district (44.2%), Ilemela district (41.2%) and Sengerema district (37.2%). (Map 3.33)

District comparison of duration of storage cannot be done for all crops combined. However, the analysis has been done for maize only as it is the most commonly stored crop. In general, quantity stored was related to the quantity produced. Districts with greater production had a higher percent of their crop stored as on 1st October 2003 (Chart 3.89).



Purposes of Storage

Subsistence food crops i.e maize, paddy, sorghum and millet, beans and pulses are mainly stored for household consumption. The percent of households that stored maize for household consumption as the main purpose of storage was 93.6 percent followed by Paddy 84.6 percent. Practically all stored annual cash crops were stored for selling at higher price. A high percent of the stored crop was used for household consumption as was the case of Maize 93.6% (Chart 3.90 and Map 3.34).



The Magnitude of Storage Loss

About 81.5 percent of households that stored crops had little or no loss, 14 percent had up to ¼ losses, 3.2 percent between ¼ and ½ loss and 1.3 percent over 1/2 loss.

Storage loss is more important in Geita district than in other districts in the region. The number of households that reported little or no loss was largest in Geita district about 30%.

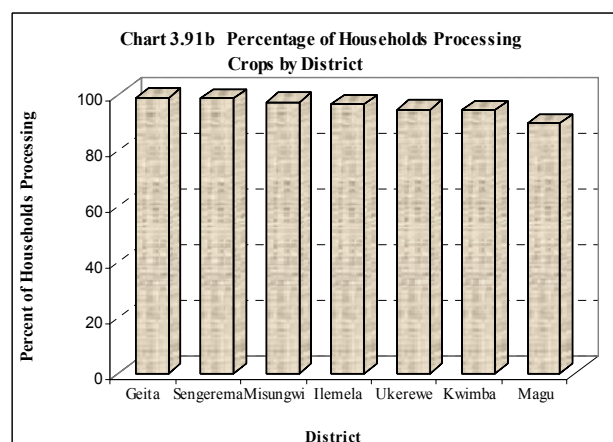
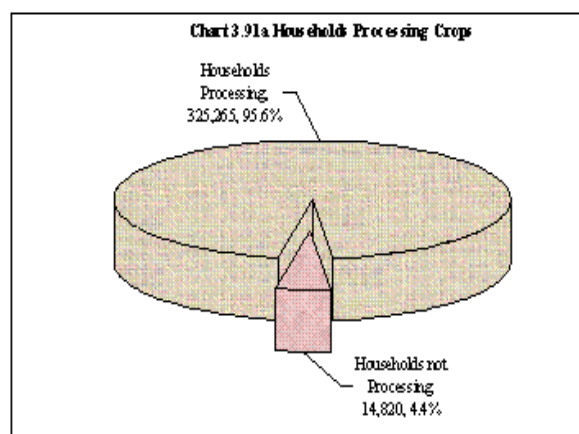
Geita and Sengerema districts had the highest percentage of households reporting up to a ¼ loss (28% and 27% respectively). between a quarter and half loss also Geita and Sengerema districts recorded the highest percentage of 36% and 33% and for over a half loss the highest percentage was recorded in Geita district about 47% (Table 3.10).

Table 3.10: Number of Households Storing Crops by Estimated Storage Loss and District

District	Estimate Storage Loss				Total
	Little or no Loss	Up to 1/4 Loss	Between 1/4 and 1/2 Loss	Over 1/2 Loss	
Ukerewe	9,724	1,898	169	83	11,874
Magu	39,960	7,006	938	271	48,175
Kwimba	32,587	5,645	624	699	39,555
Sengerema	46,996	11,302	3,215	725	62,238
Geita	73,528	11,497	3,488	1,811	90,324
Misungwi	27,648	3,081	969	179	31,877
Ilemela	10,642	980	158	55	11,835
Total	241,083	41,409	9,560	3,823	228,187

3.7.2 Agro processing and By-products

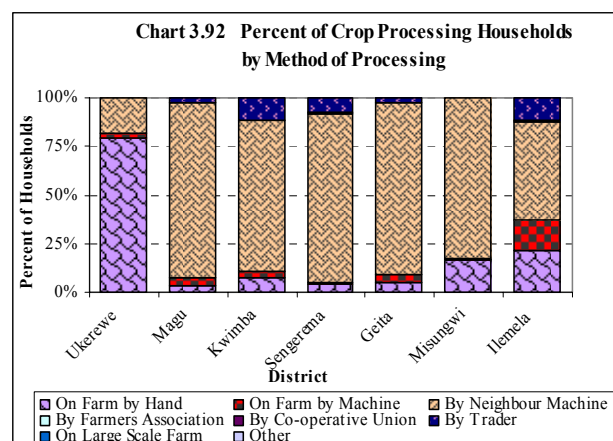
Agro processing refers to the process of converting a crop product from one form to another form in order to add value or increase the palatability of the product. Agro-processing was practiced in most crop growing households in Mwanza region with 325,929 crop growing households (95.6%) reporting processing (Chart 3.91a).



The percent of households processing crops was very high in all districts (80% of households processed crops) (Chart 3.91b).

Processing Methods

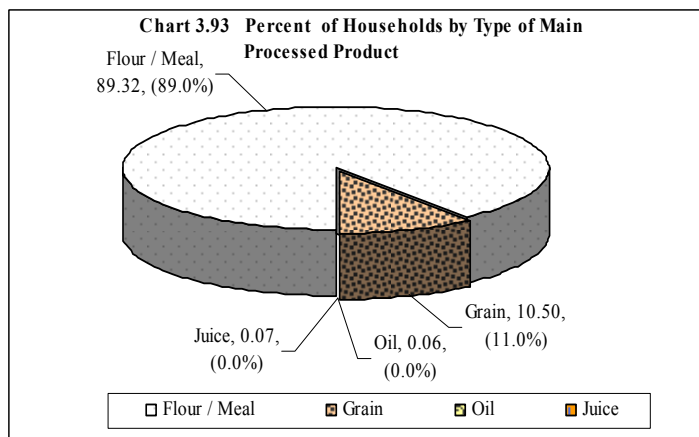
Most households processed their crops using neighbour's machines representing 78.2% (254,456 households). This was followed by those processing on-farm by hand (45,446 households, 14.0%), trader (14,929 households, 4.6%) and on-farm by machine (9,644 households, 3.0%). The remaining methods of processing were used by very few households (less than 1%).



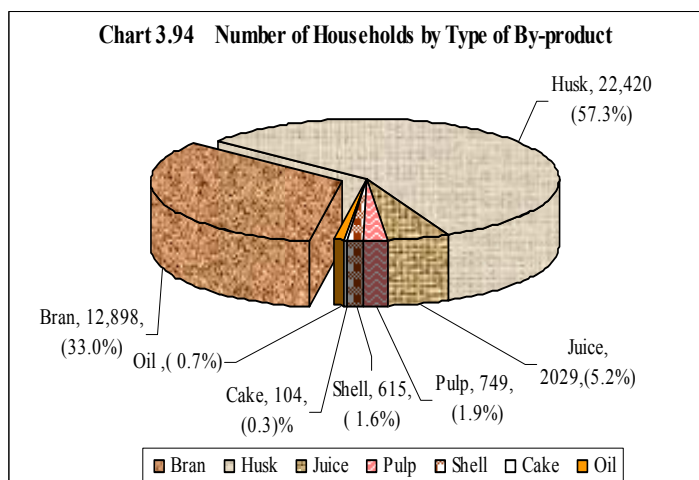
Although processing by machine was the most common processing method in all districts in Mwanza region, there were differences in districts. Ukerewe district has a higher percent of hand processing than other districts.(79.5%), followed by Ilemela district (21.5%), and Missungwi district (16.7%). Processing by trader was more common in Ilemela and Kwimba districts (12.0% and 11.7% respectively), whilst processing on farm by machine was more prevalent in Ilemela, Magu and Kwimba (Chart 3.92).

Main Agro-processing Products

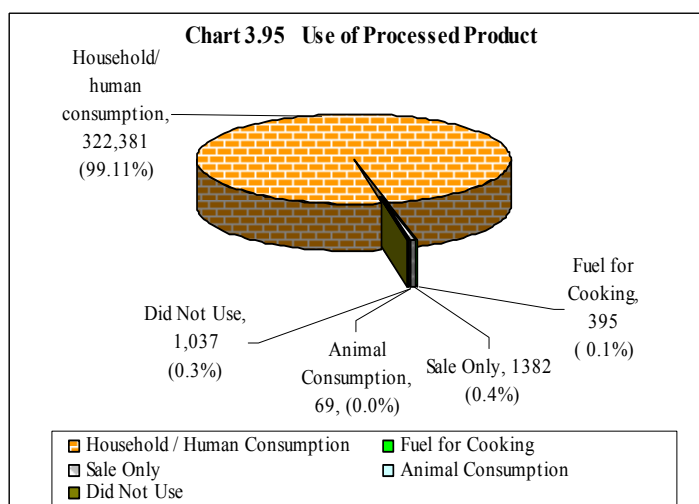
Two types of products can be produced from agro-processing namely, main product and by-product. The main product is the most important product after processing and the by-product is secondary after processing. For example the main product after processing maize is normally flour whilst the bi-product is normally the bran.



The main processed product was flour/meal with 290,516 households processing crops into flour (89.3%) followed by bran (34,326 households, 10.5%). The remaining products were produced by a small number of households (Chart 3.93).



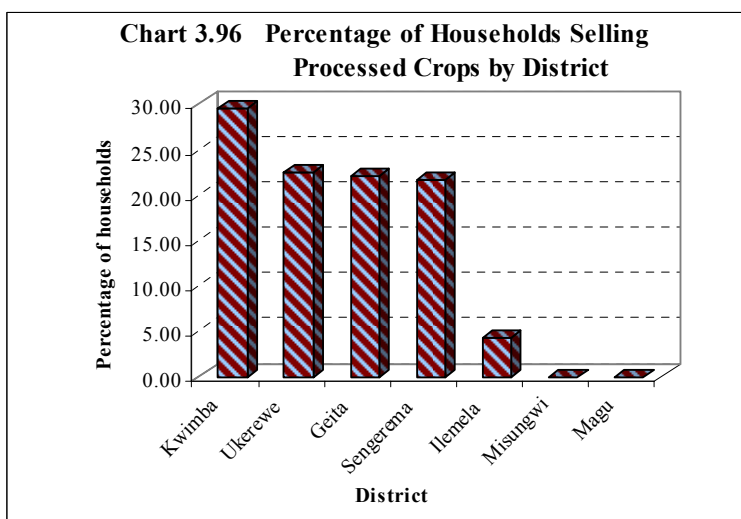
The number of households producing by-products accounted for 96% of the households processing crops. The most common by-product produced by crop processing households was husk with 85,950 households (26.5%) followed by Bran (25221 households, 78%), Juice (2,756 households, 0.85%) and pulp (1,751 households, 0.5%). The remaining by-products were produced by a small number of households (Chart 3.94).



Main Use of Primary Processed Products

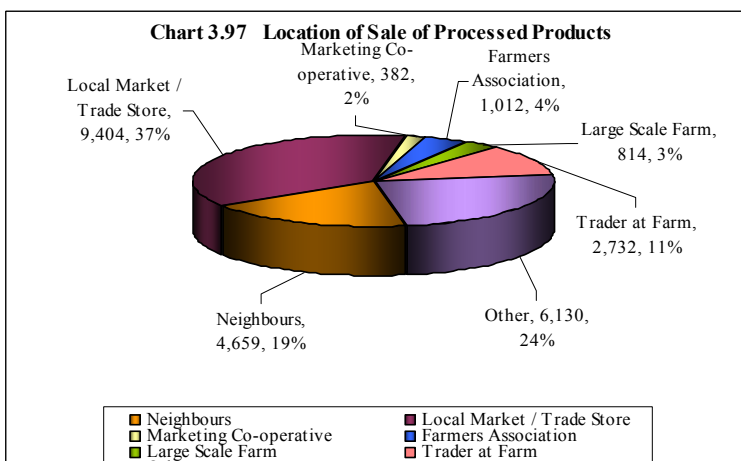
The most important use of primary products was for household/human consumption which represented 99.3% of the total households that used primary processed product (Chart 3.95). Missungwi was the only district that used primary products animal consumption. Other uses are of minor importance.

Out of 1,382 households that sold processed products, 409 were from Kwimba district (29.6% of the total number of households selling processed products in the region), followed by Ukerewe with 311 households (22.5%), Geita with 304 households (22.0%), Sengerema with 300 households (21.7%) and Ilemela with 59 households (4.2%). Two districts Magu and Missungwi had no households that sold processed products in the region (Chart 3.96).



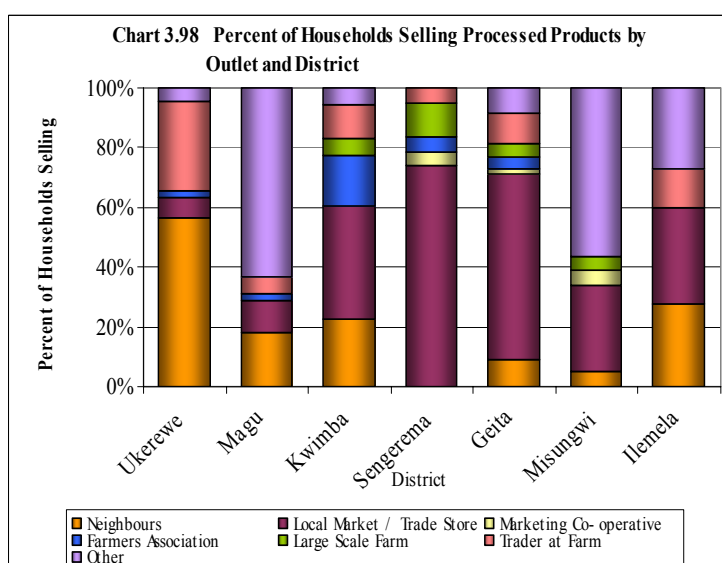
Outlets for Sale of Processed Products

Most households that sold processed products sold to local market and trade stores (9,404 households, 37% of households that sold crops). This was followed by selling to neighbours (4,659 households, 19%), trader at farm (2,732 households, 11%), farmers associations (1,012 households, 4%), large scale farm (814 households, 3%) and marketing co-operatives (382 households, 2%) (Chart 3.97).



There were large differences between districts in the proportion of households selling processed products to neighbours with Ukerewe district having the largest percent of households selling to neighbours (56.6%), whereas in Sengerema district there no household sold processed products to neighbours. However, Sengerema district had a higher percent of households relying on local markets/trade stores than other outlets.

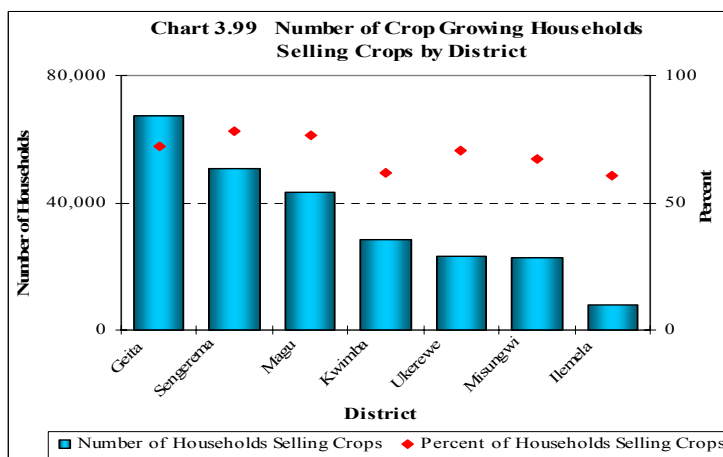
Compared to other districts, Ukerewe district had the highest percent of households selling processed products to traders at farm. In Kwimba district the sale of processed produce



to farmer associations was most prominent compared to other districts, and district that had the highest proportion of households selling processed products to marketing cooperative was Missungwi. (Chart 3.98).

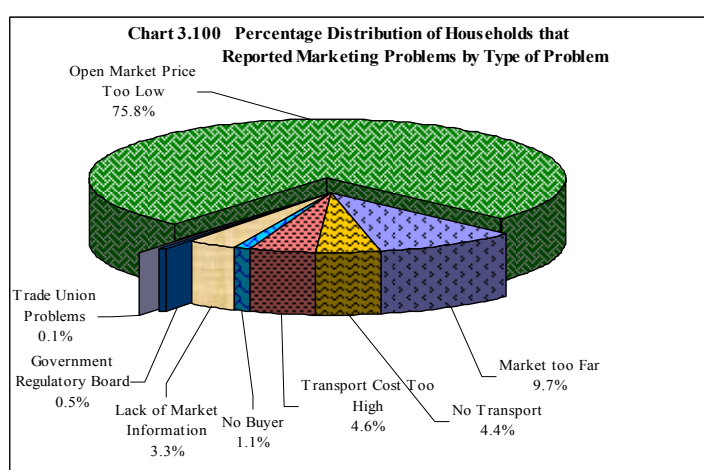
3.7.3 Crop Marketing

The number of households that reported selling crops was 243,200 which represent 71.8% of the total number of crop growing households. There was little difference between districts in the percent of households selling crops. The percent of crop growing households selling crops was highest in Sengerema (78.3%) followed by Magu (76.6%), Geita (72.0%), Ukerewe (70.3%), Misungwi (67.6%) Kwimba (61.9%) and Ilemela (60.7%) (Chart 3.99).



Main Marketing Problems

The main marketing problem reported by crop growing households was open market price too low 53,292 households, (75.8%). This was followed by market too far, 6,824 households (9.7%), other problems were transport cost too high, 3,235 households (4.6%), lack of transport, 3,083 households (4.4%), lack of information, 2,336 households (3.3%). Other marketing problems are minor and represent less than 1 percent of the total reported problem



Reason for Not Selling Crops

The main reason for not selling crops was reported as “insufficient production to sell”, representing 92.8% of the smallholders. The remaining reasons for not selling are in such low numbers that it is not appropriate to rank their importance (Table 3.11).

Table 3.11 Reasons for Not Selling Crop Produce

Main Reason	Household Number	%
Production Insufficient to Sell	114,758	92.8
Other	2,282	1.8
Price Too Low	3,539	2.9
Trade Union Problems	1,641	1.3
Co-operative Problems	180	0.1
Market Too Far	1,032	0.8
Government Regulatory Board Problems	260	0.2
Total	123,692	100.0

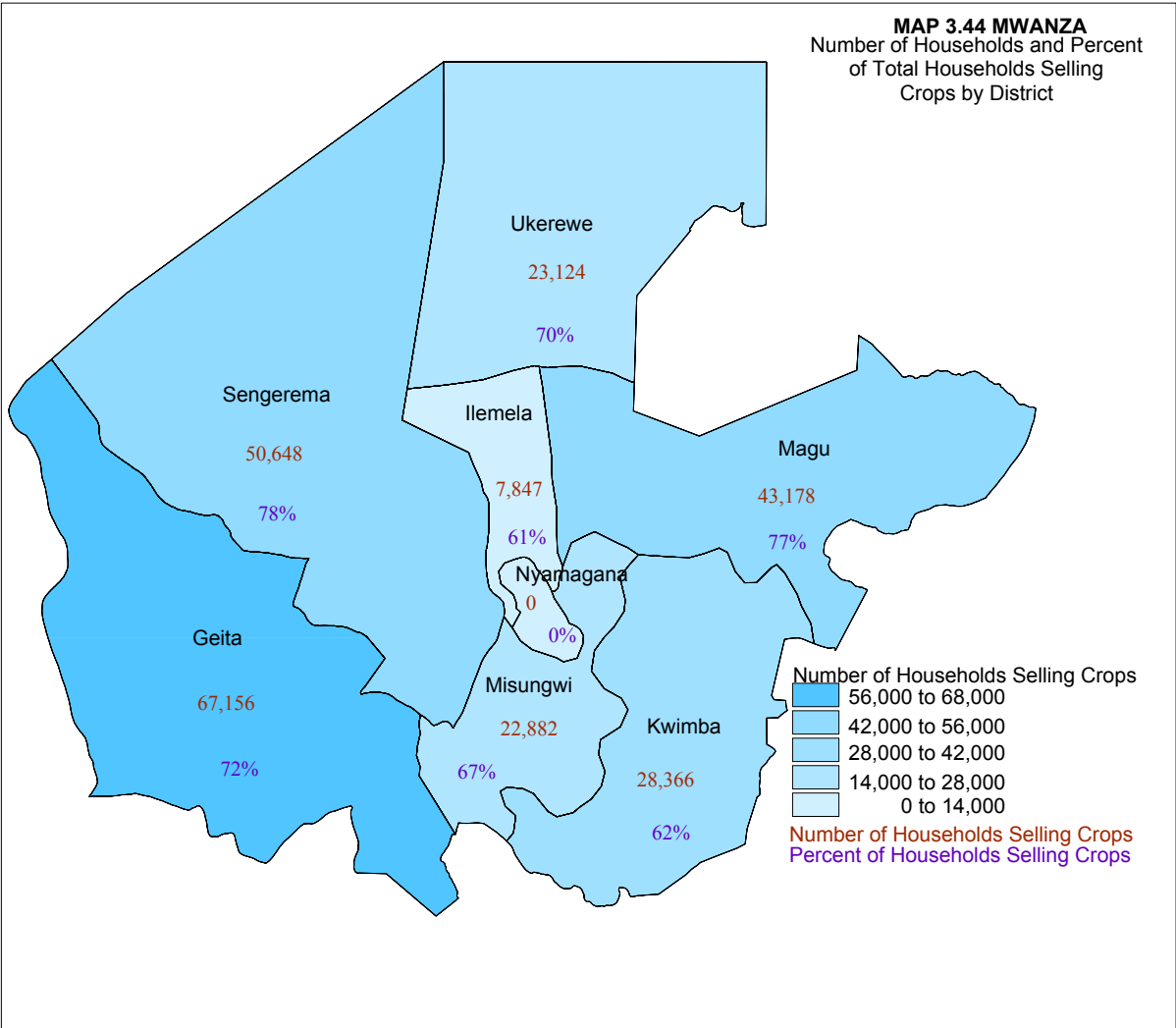
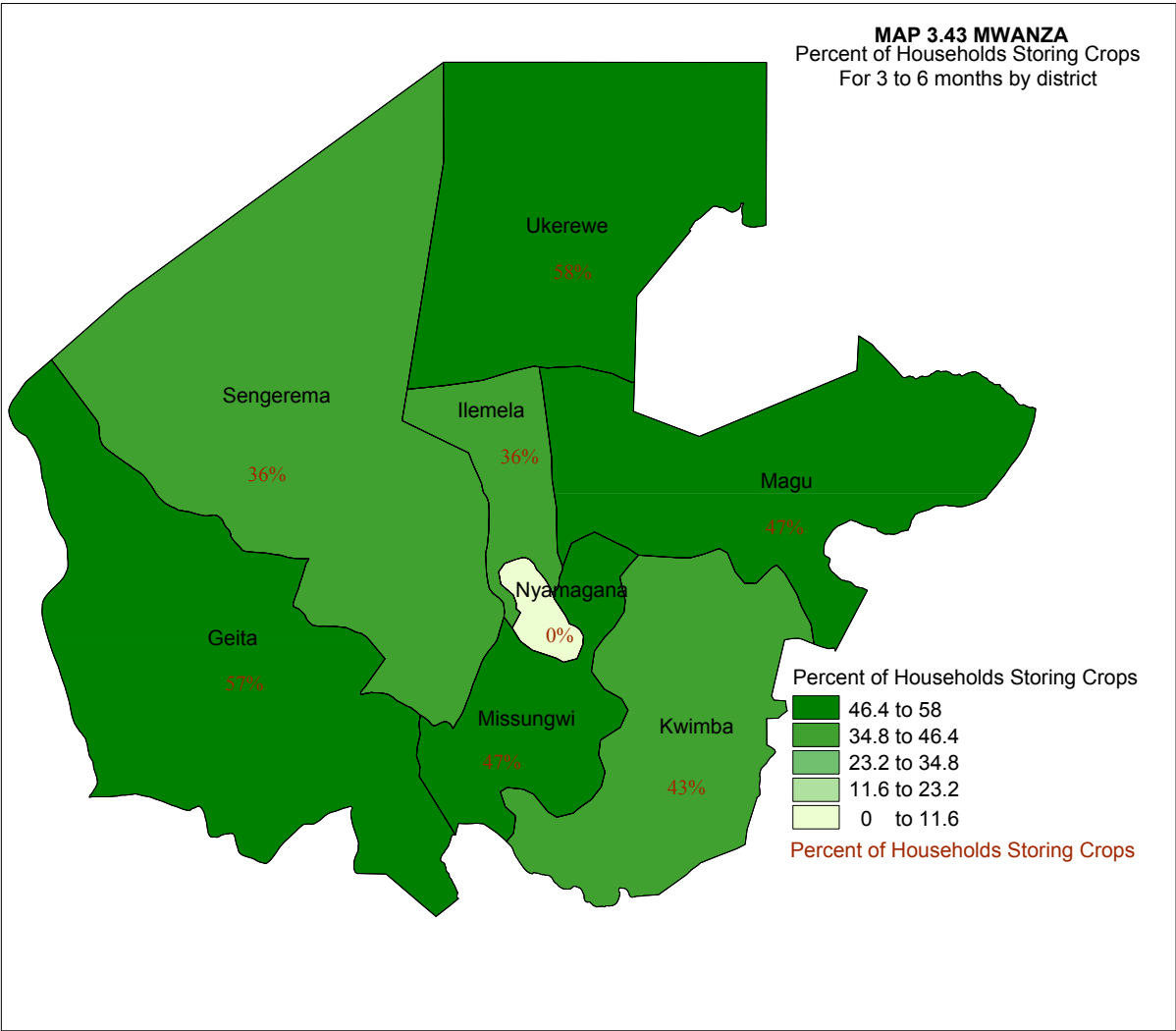
3.8 Access to Crop Production Services

3.8.1 Access to Agricultural Credit

The census result shows that in Mwanza region very few agricultural households (9,991, 0.4%) accessed credit out of which 7,358 (74%) were male-headed households and 2,633 (26%) were female headed households. In Geita district, only male headed households accessed credit. (Table 3.12) Map 3.43 and 3.44

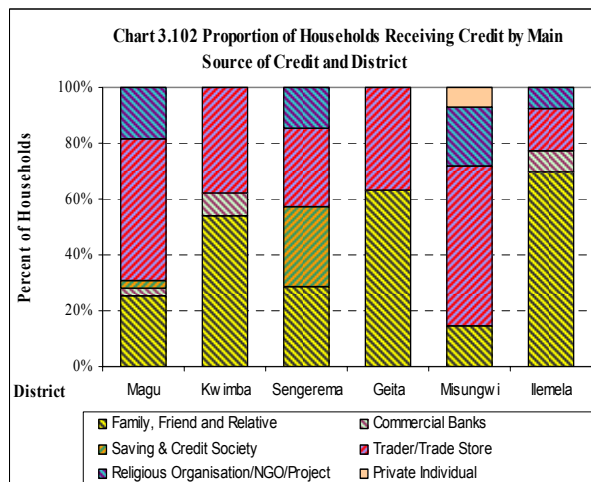
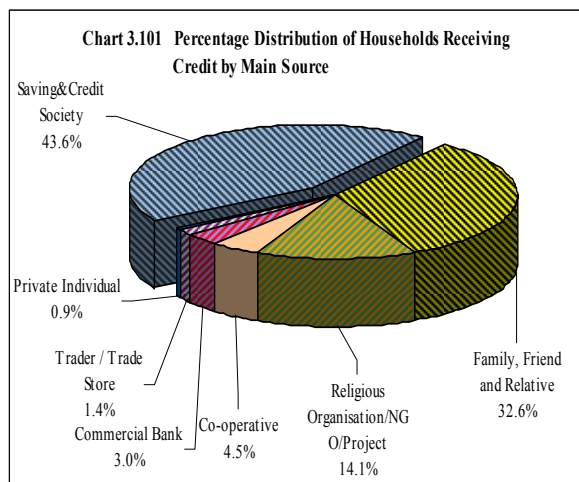
Table 3.12 Number of Agricultural Households that Received Credit by Sex of Household Head and District

District	Male		Female		Total
	Number	%	Number	%	
Magu	3,659	71	1,527	29	5,187
Kwimba	920	69	409	31	1,329
Sengerema	761	71	308	29	1,069
Geita	460	100	0	0	460
Misungwi	1,059	86	179	14	1,238
Ilemela	498	70	209	30	707
Total	7,357	74	2,632	26	9,989



Source of Agricultural Credit

The major agricultural credit provider in Mwanza region were Saving & Credit Societies which collectively provided credit to 4,352 agricultural households, 43.6% of the total number of households that accessed credit), followed by family, friends and relatives (32.6%), Religious Organization/NGO/Project (14.1%), Co operative (4.5%), commercial bank (3.0%) and trader/trade(1.4%) (Chart 3.101). Trader/Trade Store was the most important source of credit in Magu district;



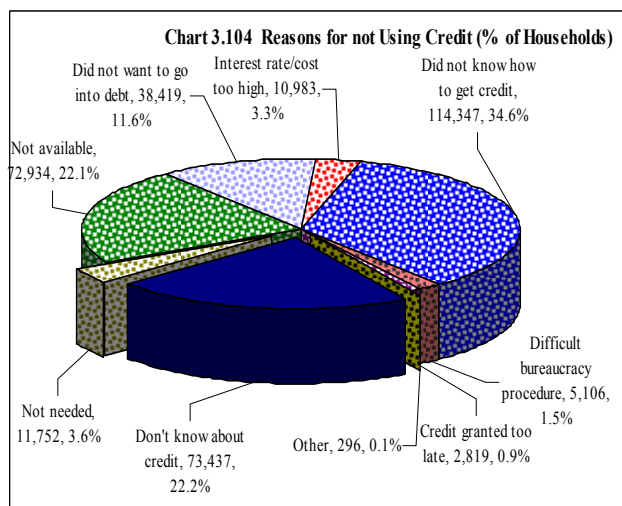
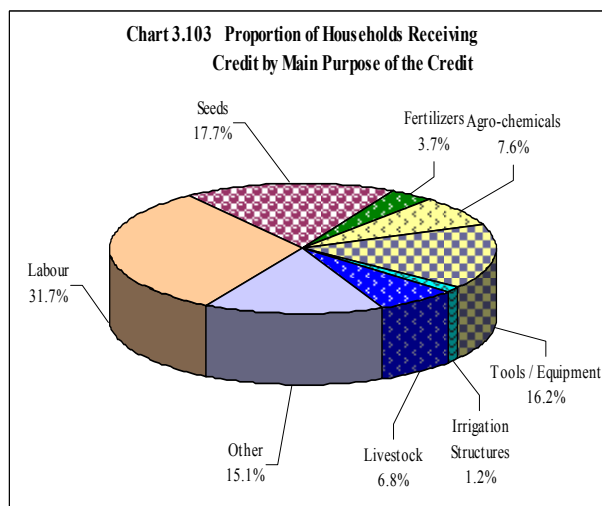
Commercial Banks were found in Magu, Kwimba and Ilemela districts. (Chart 3.102).

Use of Agricultural Credit

A large proportion of the agricultural credit provided to agricultural households in the region were used on labour (31.7%), followed by Seeds (17.7%), tools/equipment (16.2%) other (15%) and Agro-Chemicals (7.6%). The proportion of credit intended to be used for fertilizers, and irrigation Structures was very low (Chart 3.103).

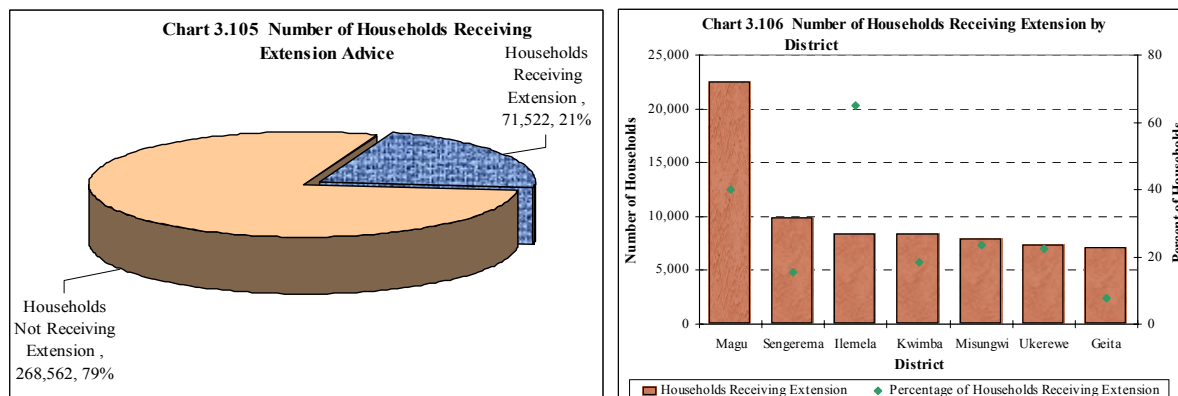
Reasons for Not Using Agricultural Credit

The main reason for not using agricultural credit as a source of finance was did not know how to get credit accounting to 34.6 percent of the agricultural households. This was followed by households reporting don't know about credit 22.2 percent Credit not available 22.1 percent, did not want to go into debt 11.6 percent. The rest of the reasons for not using credit were not important.



3.8.2 Crop Extension

The number of Agricultural households that received crop extension was estimated at 71,522 or 21% of total crop growing households in the region.(Chart 3.105) Some districts have more access to extension services than others. (Chart 3.106).. Ilemela had a relatively high proportion of households (65%) that received crop extension messages in the district followed by Magu (40%), Missungwi (23%), Ukerewe (22%), Kwimba(18%), Sengerema(15%) and Geita (8%) (Chart 3.106 and Map 3.41).



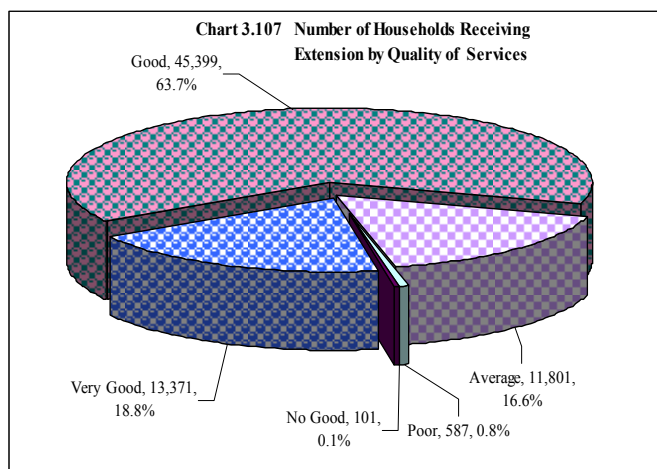
Sources of Crop Extension Messages

Of the households receiving extension advice the Government provided the most with 61,731 households (87% of the households receiving extension), NGOs provide 6,754 households (10%) and large scale farms 1,691 households (2%) (chart Map 3.41)

Quality of Extension

An assessment of quality of extension indicated that 63.7% of the households receiving extension ranked the service as being good followed by Very Good (18.8%), Average (16.6%), Poor (0.8%) and No Good (0.1%), (Chart 3.108).

However, care should be exercised when making decisions on quality of extension and also other variables in the extension section as all the enumerators were extension agents and some degree of bias is expected.



3.9 Access to Inputs

3.9.1 Use of Inputs

Access to inputs in this section refers to all crop growing households in Tanzania regardless of whether the household grew annual or permanent crops. In previous sections the reference was on annual crops only. Because of this, some of the figures presented in this section may be slightly different from the previous section on inputs use (Section 3.5). Data on source of inputs is only found in this section and it applies to both annual and permanent crop.

A small number of households use inputs and this particularly true of inputs that are not produced on farm, pesticides/fungicide, compost and herbicides. In Mwanza region Inorganic fertilizers were used by households which represents 2.8 percent of the total number of crop growing households, farm yard manure (30.3%), improved seeds (37.9%), pesticides/fungicides (16.9%), compost (3.8%) and herbicides (0.3%).

Type of Input	Households With Access to Input		Households Without Access to Input	
	Number	%	Number	%
Farm yard manure	103,260	30.3	237,259	69.7
Improved seeds	127,982	27.9	330,624	72.1
Pesticides/Fungicide	57,260	16.8	282,716	83.2
Inorganic fertiliser	9460	2.8	329,468	97.2
Compost	12,896	3.8	327,019	96.2
Herbicide	1,054	0.3	339,031	99.7

3.9.2 Inorganic Fertilizers

Practically all farmers using inorganic fertilizer purchase it from the local market/trade store (98.6% of the number of households using fertilizers). The other source, although minor, was local farmers groups (Chart 3.108).

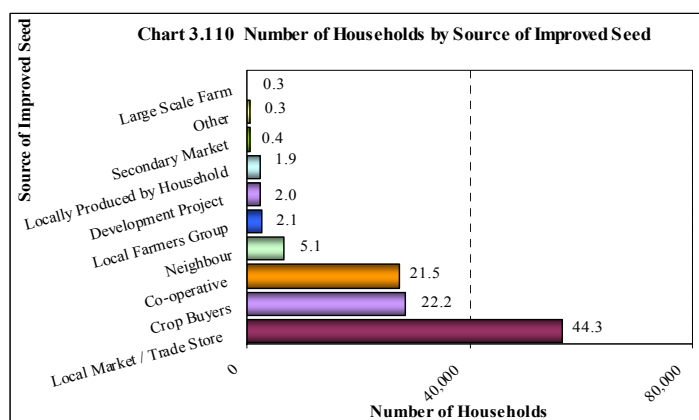
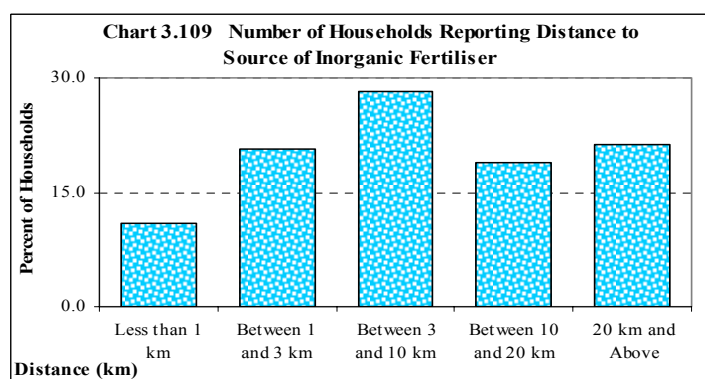
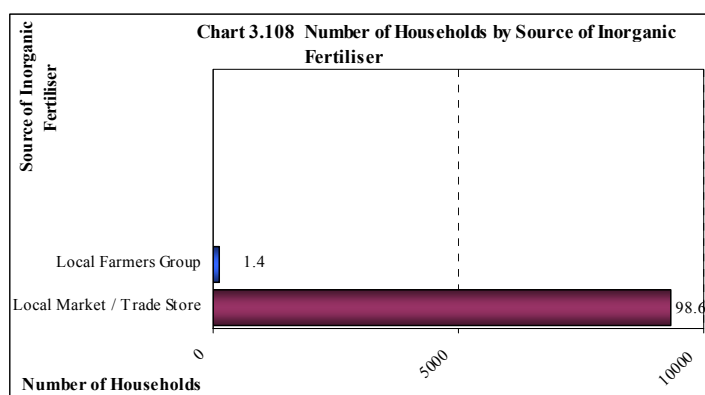
The distance from the household to source of inorganic fertilizer was mainly less than 10 km with most households residing between 3 and 10 km from the source (28%), followed by 1 and 3 km (21%) and less than 1 km (11%) (Chart 3.109). Due to the very small number of households using inorganic fertilizers, it may be assumed that access to inorganic fertilizer was not the main reason for not using it. Other reasons such as cost are more important with 70 percent of households responding to cost factors as the main reason for not using the fertilizers. In other words,

it may be assumed that if the cost was affordable the demand would be higher and access to inorganic fertilizer would be made available.

There were more smallholders using inorganic fertilizers in Ilemela than in other districts in Mwanza region (15% of the households used inorganic fertilizers), followed by Missungwi (6%), and Sengerema (3%). Other districts used very little inorganic fertilizers.

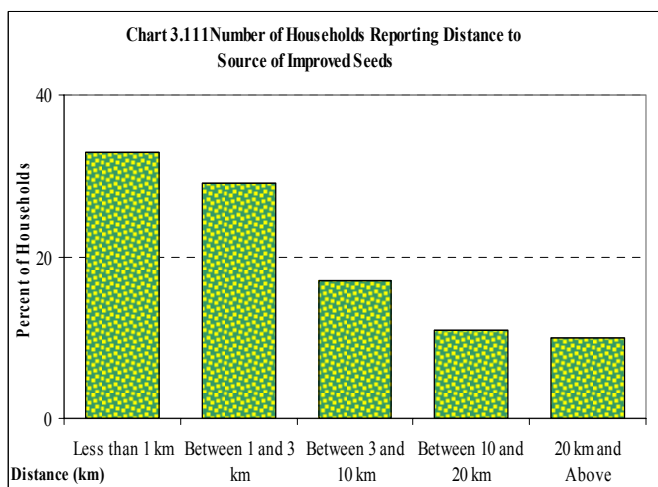
3.9.3 Improved Seeds

The percentage of crop growing households that used improved seeds was 37.6. Most of the improved seeds were obtained from the local market/trade stores (44.2%), crop buyers (22.2%), co-operative (21.5%), other less important sources of improved seeds were neighbours (5.1%), local farmers groups (2.1%), locally produced by households (1.9%),



Secondary markets (0.4%), large scale farms (0.3%) and other sources (0.3%).

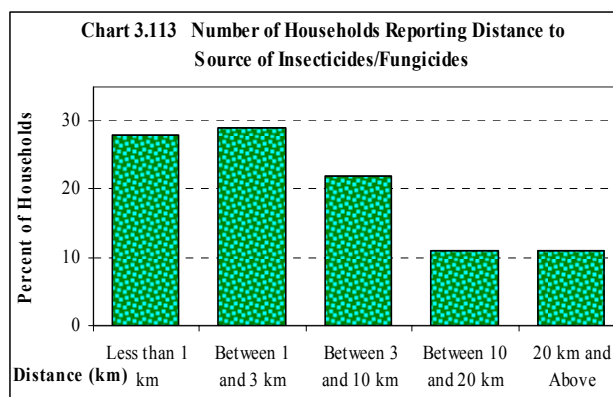
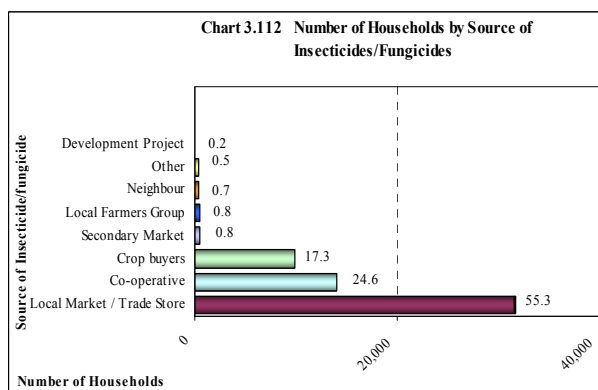
Access to improved seeds was better than access to chemical fertilizers with 33 percent of households obtaining this input within 1 km of the household (Chart 3.111). This is in line with the higher use of improved seed compared to other chemical inputs, which further supports the concept that it is not the availability that is the main issue in the use of inputs but rather other factors such as cost. The districts that used improved seeds most was Magu (26.7 percent of the total number of households using improved seeds in Mwanza region), followed by Geita (25.3%) and Sengerema (21.0%), Use of improved seeds in other districts is of was not significant (Map3.44).



3.9.4 Insecticides and Fungicides

Most smallholder households using insecticides and fungicides mainly purchased them from local markets/trade stores (55.2% of the total number of fungicides users) followed by cooperatives (24.5%) and crop buyers (17.3%). Other sources of insecticides/fungicides are of minor importance (Chart 3.112)

Chart 3.113 shows that there for 78.7%, of the households using insecticides/ fungicides the sources was within a distance of 10 kms. The district that used insecticide/fungicides most was Geita (37.1 percent of the total number of households that use fungicides in the region), followed by Magu (26.2%), Sengerema (20.0%), insecticides/fungicides use in other districts was of no importance



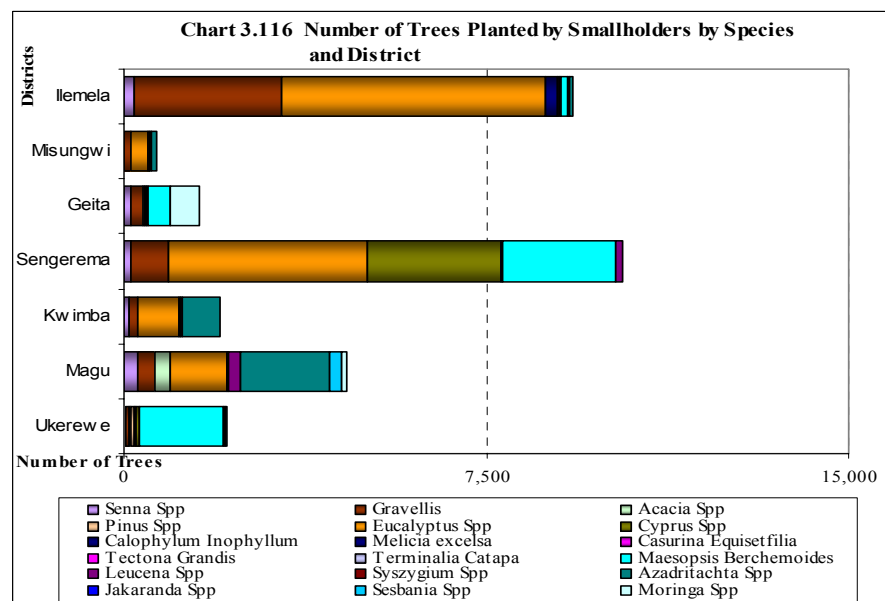
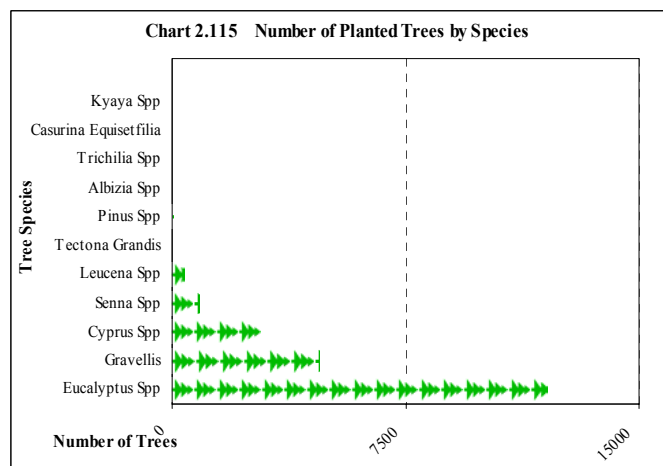
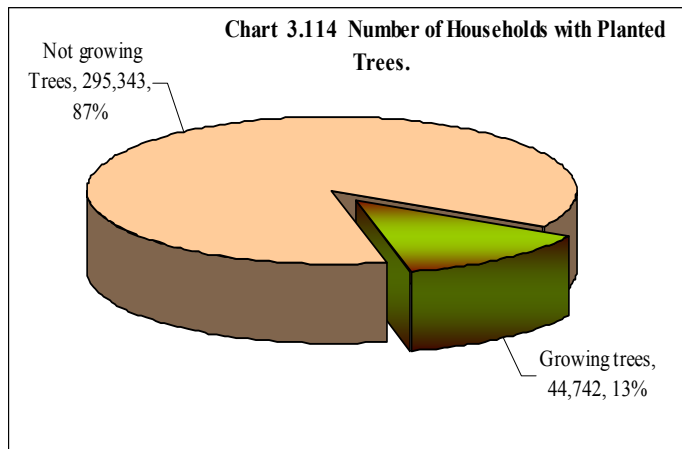
3.10 Tree Planting.

The number of households involved in tree farming was 44,741 representing 13 percent of the total number of agriculture households (Chart 3.114).

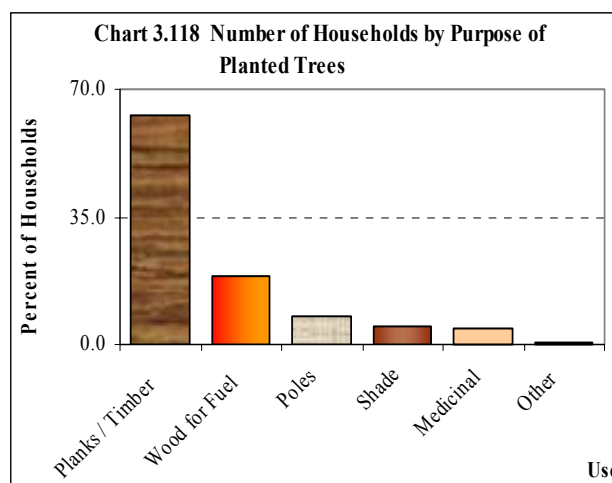
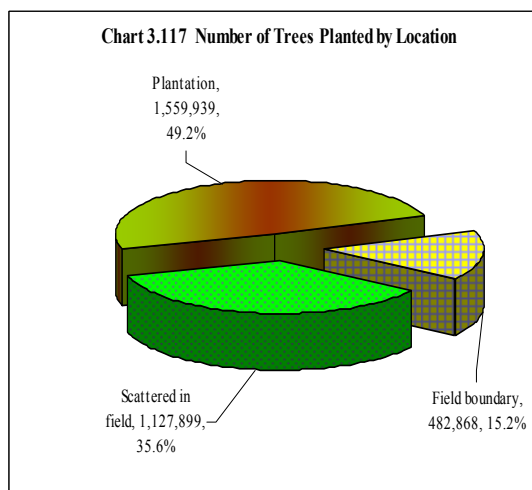
The number of trees planted by smallholders on their allotted land was 3,170,706 trees. The average number of trees planted per households planting trees was 71 trees

The main species planted by smallholders is Eucalyptus Spp (12018 trees, 56.5%), followed by Gravellis (4,764 trees, 22.4%), Cyprus Spp 2921 trees, 13.7%), Senna Spp 920 trees, 4.3% and Laucena Spp 413 trees, 1.94%). The remaining trees species were planted in comparatively small numbers (Chart 3.115).

Sengerema had the largest number of smallholders with planted trees than any other district (33.8%) and was dominated by Eucalyptus species. This is followed by Ilemela (30.3%) which was also dominated by Eucalyptus species and to a lesser extent Gravellia, then Magu (50.0% which was mainly planted with Azadritachta Spp. (Chart 3.116 and Map 3.45).



Smallholders mostly plant trees in a plantation. The proportion of households that plant in plantations were 49.2 percent followed by scattered around the fields (35%) and then field boundary (15.2%) (Chart 3.117).



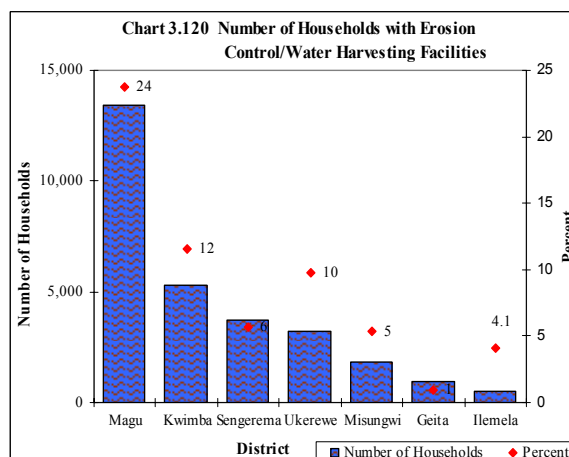
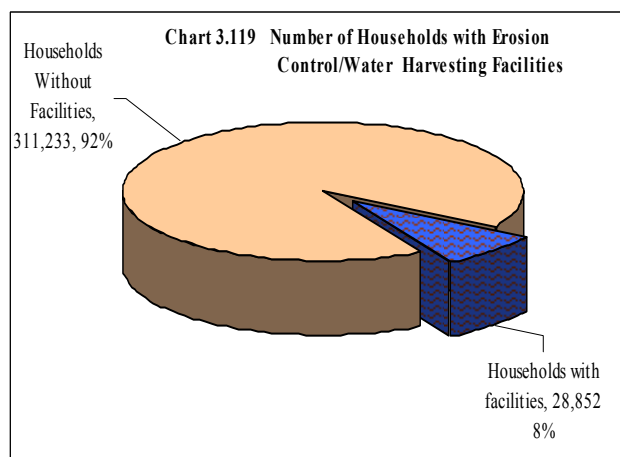
The main purpose of planting trees is to obtain planks/Timber (62.6%), this is followed by Wood for fuel (18.2%), Poles (7.8%) Shade (5.1%), Charcoal (0.7%) and other (0.6 %), (Chart 3.118)

3.11 Irrigation and Erosion Control Facilities

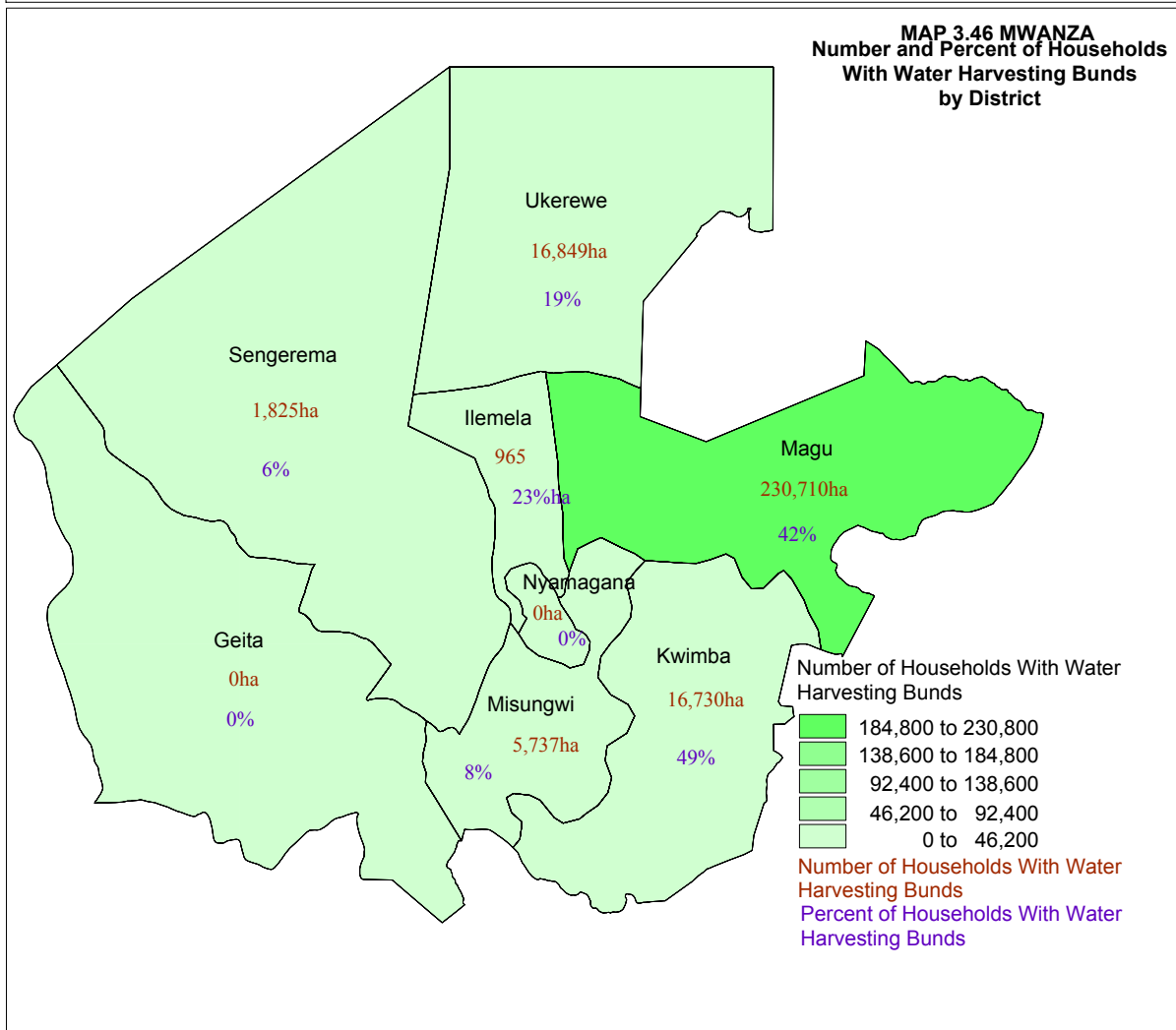
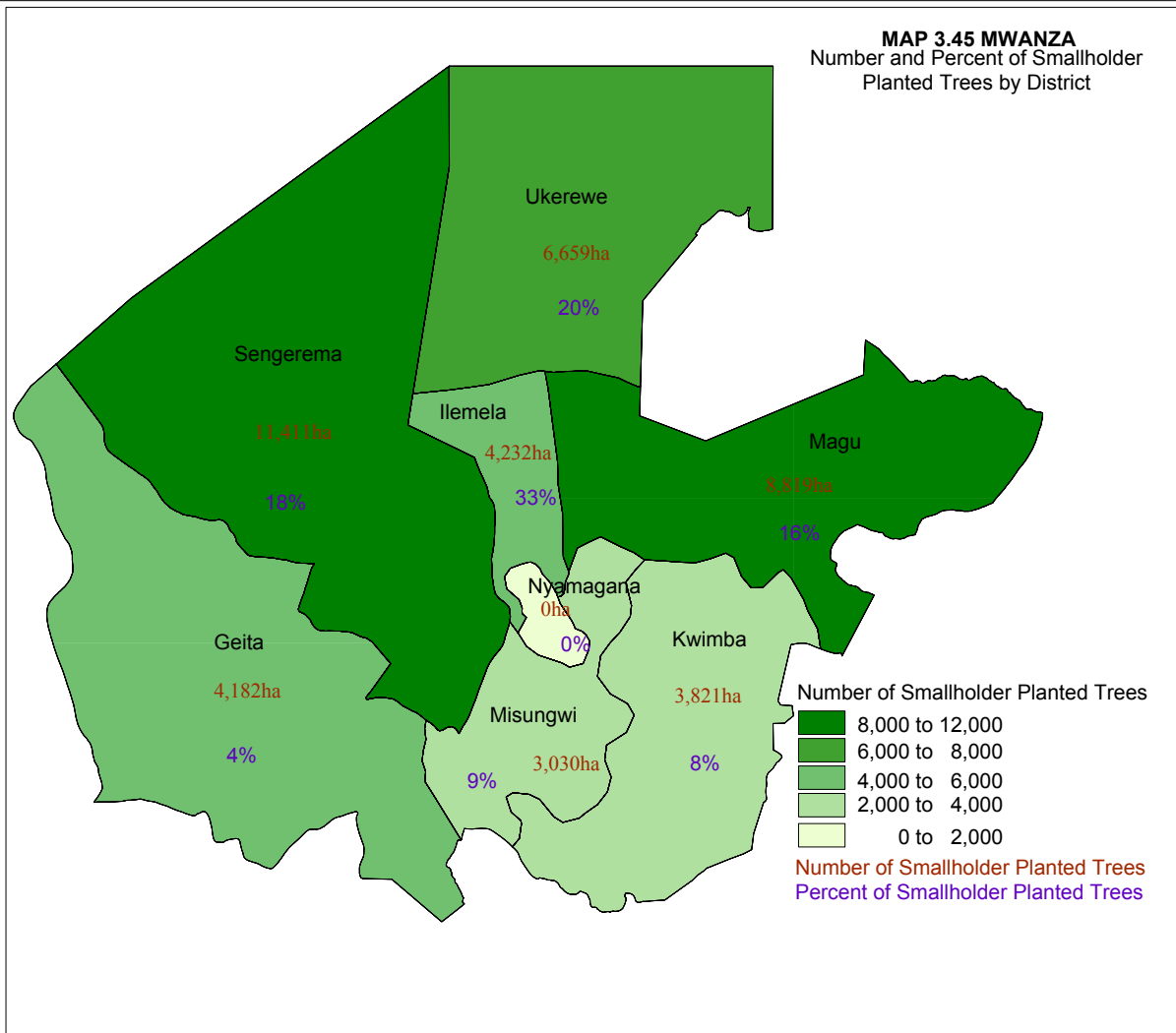
Erosion control and water harvesting facilities are grouped together as they normally have dual purposes of reducing erosion and increasing the amount of water available for crop production.

The number of agricultural households that reported the presence of soil erosion and water harvesting facilities on their farms was 28,852. This number represents 8% of total number of agricultural households in the region. (Chart 3.119).

The proportion of farmers with soil erosion control and water harvesting facilities was highest in Magu District (24%) followed by Kwimba (12%), Ukerewe (10%), Sengerema (6%), Missungwi (5%), Ilemela(4%) Geita (1%) Chart 3.120).



Erosion control bunds accounted for 56.7% of the total number of structures built; it was followed by water harvesting bunds (35.0%), terraces (5.3%), drainage ditches (1.4%), gabions (0.6%), tree belts (0.6%) vertiver grass (0.2%) and dam (0.1%). (Chart 3.121 and Map 3.46)



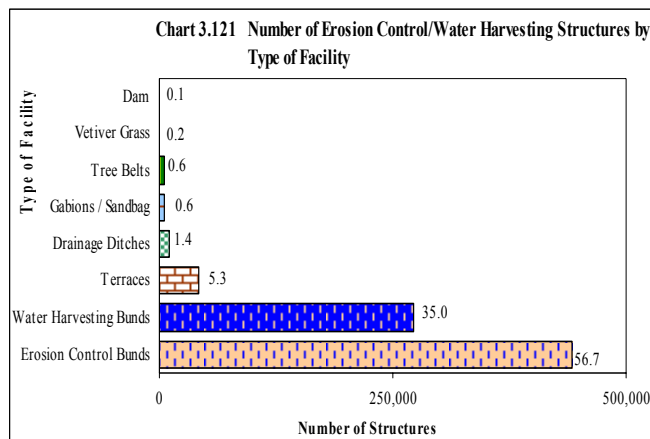
3.12 Livestock Results

Cattle Production

Cattle are the dominant livestock type in the region followed by goats, sheep and pigs. The region had 10.2 percent of the total cattle population on Tanzania, Mainland.

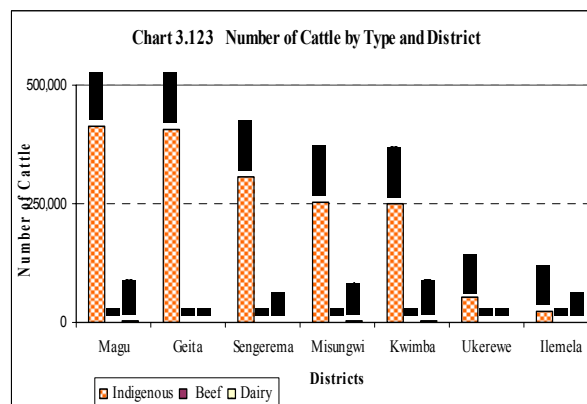
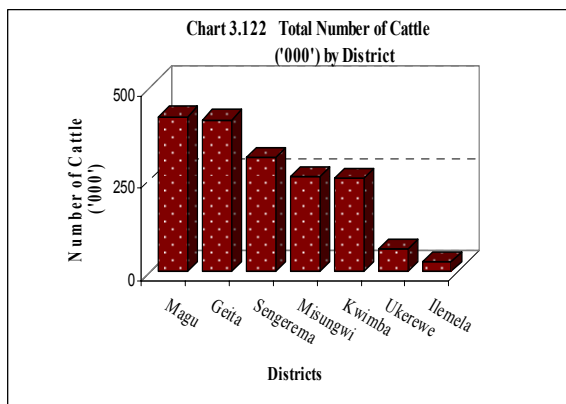
3.12.1 Cattle Population

The total number of cattle in the region was 1,718,191 and out of this 1,710,309 were indigenous (99.5% of the total number of cattle in the region), 7,882 were improved dairy (0.5%) and there were no improved beef cattle in the region.



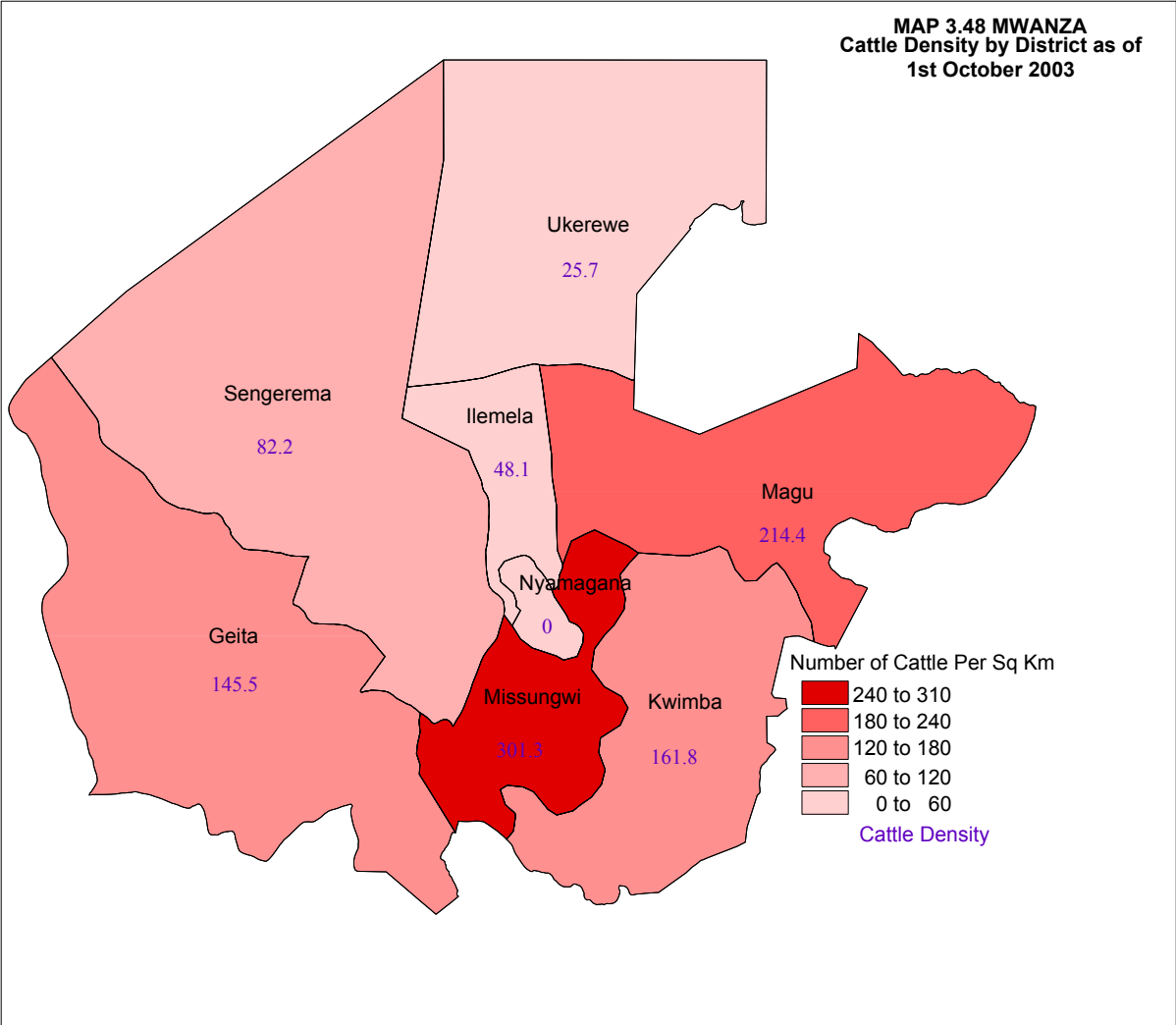
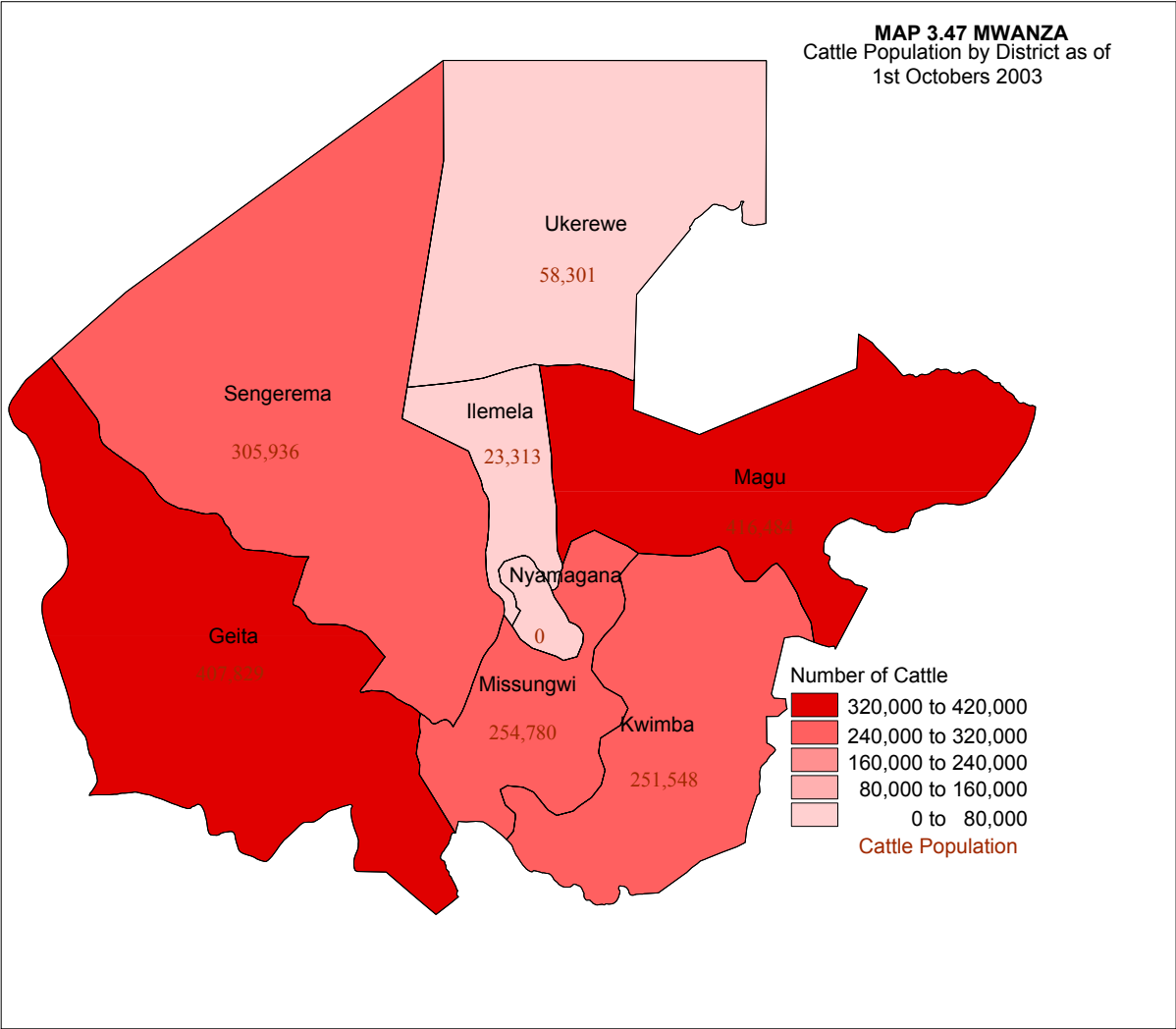
The census results show that 118,062 agricultural households (34.7% of the total agricultural households) kept 1,718,191 million cattle. This was equivalent to an average of 15 heads of cattle per cattle-keeping-household. The district with the largest number of cattle was Magu which had about 416,484 (24.2% of the total cattle in the region). This was followed by Geita (407,829 cattle, 23.7%), Sengerema (305,936 cattle, 17.8%), Missungwi (254,780 cattle, 14.8%), Kwimba 251,548 cattle 14.6%) Ukerewe (58,301 cattle, 3.4%), and Ilemela (23,313 cattle, 1.4%) (Chart 3.122.and Map 3.47) However, Missungwi district had the highest density (301 head per Km²), (Map 3.48).

Although Magu district had the largest number of cattle in the region, most of them were indigenous. The number of dairy cattle was very small and there were no improved beef cattle in the district. Magu district had the largest number of dairy cattle in the region. (Chart 3.123).



Cattle Herd Size

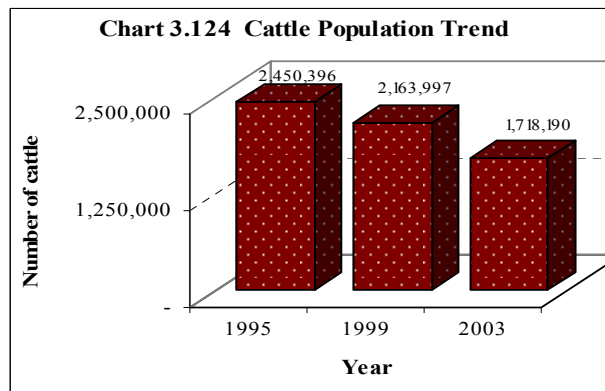
Thirty eight percent of the cattle-rearing households had herds of size 1-5 cattle with an average of three cattle per household. Fifty percent of the cattle rearing households had herds of size 6-30. Only 4 per cent of the cattle rearing households had herd sizes of between 31 to 100 cattle, 88 percent of the total cattle rearing households had herds of size 1-30 cattle and owned 53 percent of the total cattle in the region of an average of 2 cattle per cattle rearing household. There were about 451 households with a herd size of more than 100 cattle each which together owned 105,500 cattle, resulting in an average of 229 cattle per household.



Cattle Population Trend

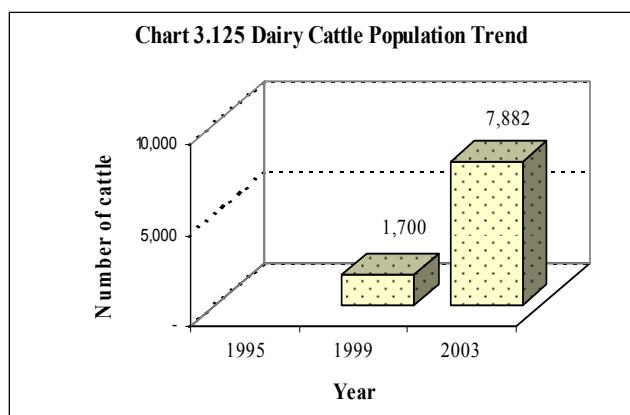
Cattle population in Mwanza decreased during the period of eight years from 2,450,396 in 1995 to 1,718,190 cattle in 2003. This trend depicts an overall annual negative growth rate of 12.46 percent (Chart 3.124)

However, the rate of decline was -5.6% over a four year period from 1995 to 1999 whereby the number dropped from 2,450,396 to 2,163,997, and it was -4-34% over the period 1999 to 2003 resulting in a drop from 2,163,997 cattle in 1999 to 1,718,190 in 2003.



Dairy Cattle Breeds

The total number of improved cattle in Mwanza region was 7,882 all of them being dairy cattle. The dairy cattle constituted 0.5 percent of the total cattle in the region. There were no improved beef cattle reported in region. The number of improved cattle increased from 1,700 in 1999 to 7,882 in 2003. The rate of growth was therefore very high over the period 1999 to 2003, there was no figure reported for 1995. Chart 3.125)



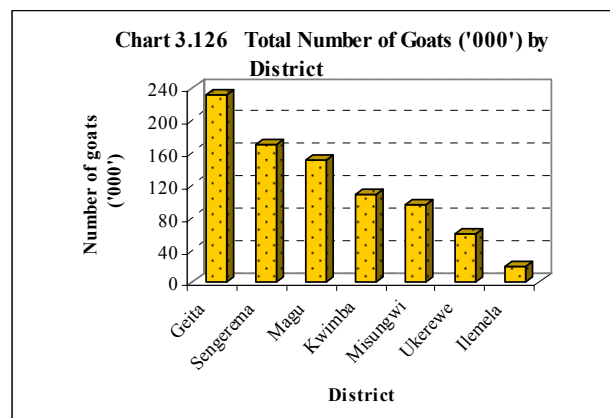
3.12.2. Goat Production

Goat rearing was the second most important livestock keeping activity in the region followed by sheep and pig rearing. In terms of total number of goats on the Mainland, Mwanza region ranked 4th out of the 21 regions with 7 percent of all total goats on the Mainland.

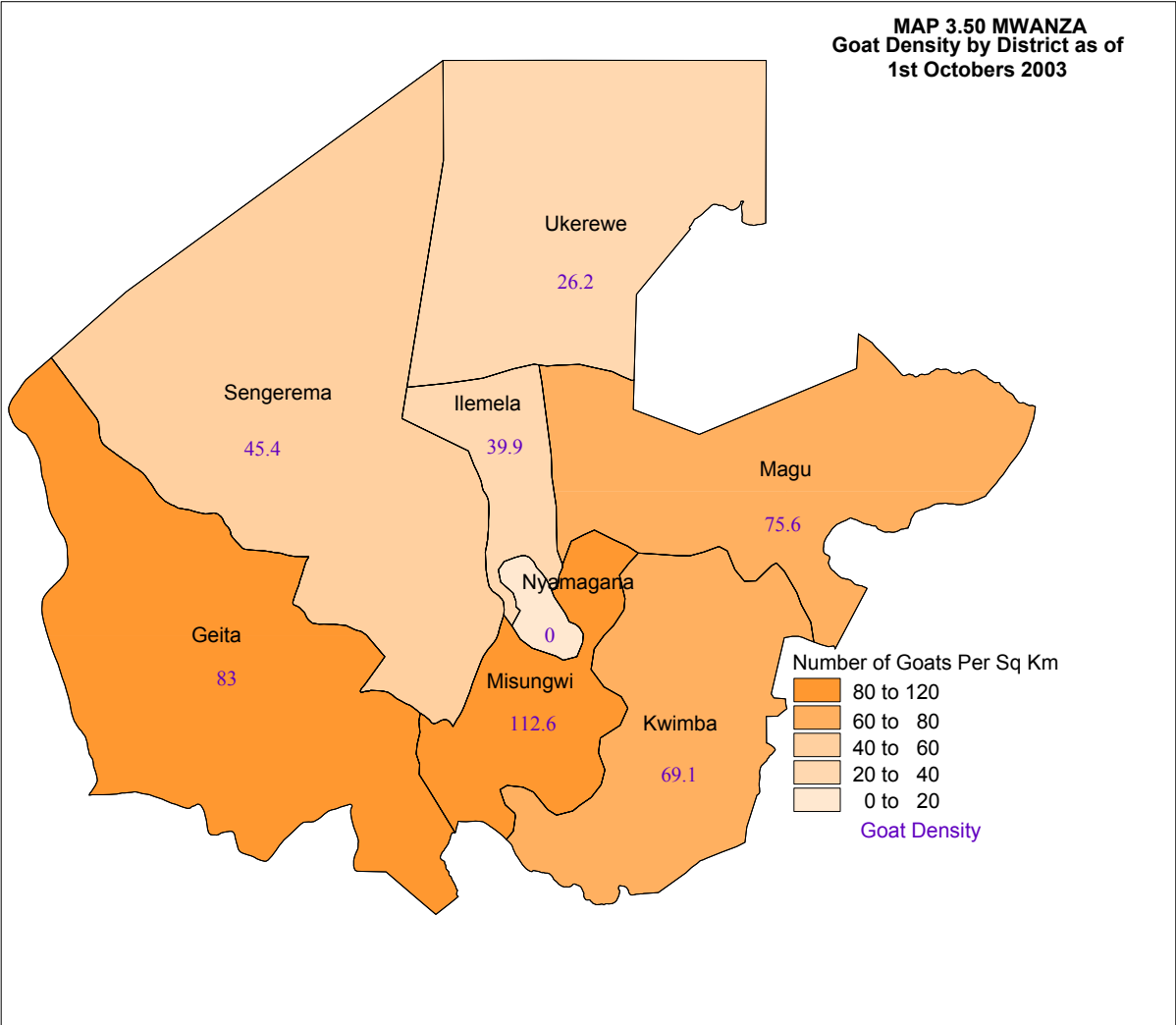
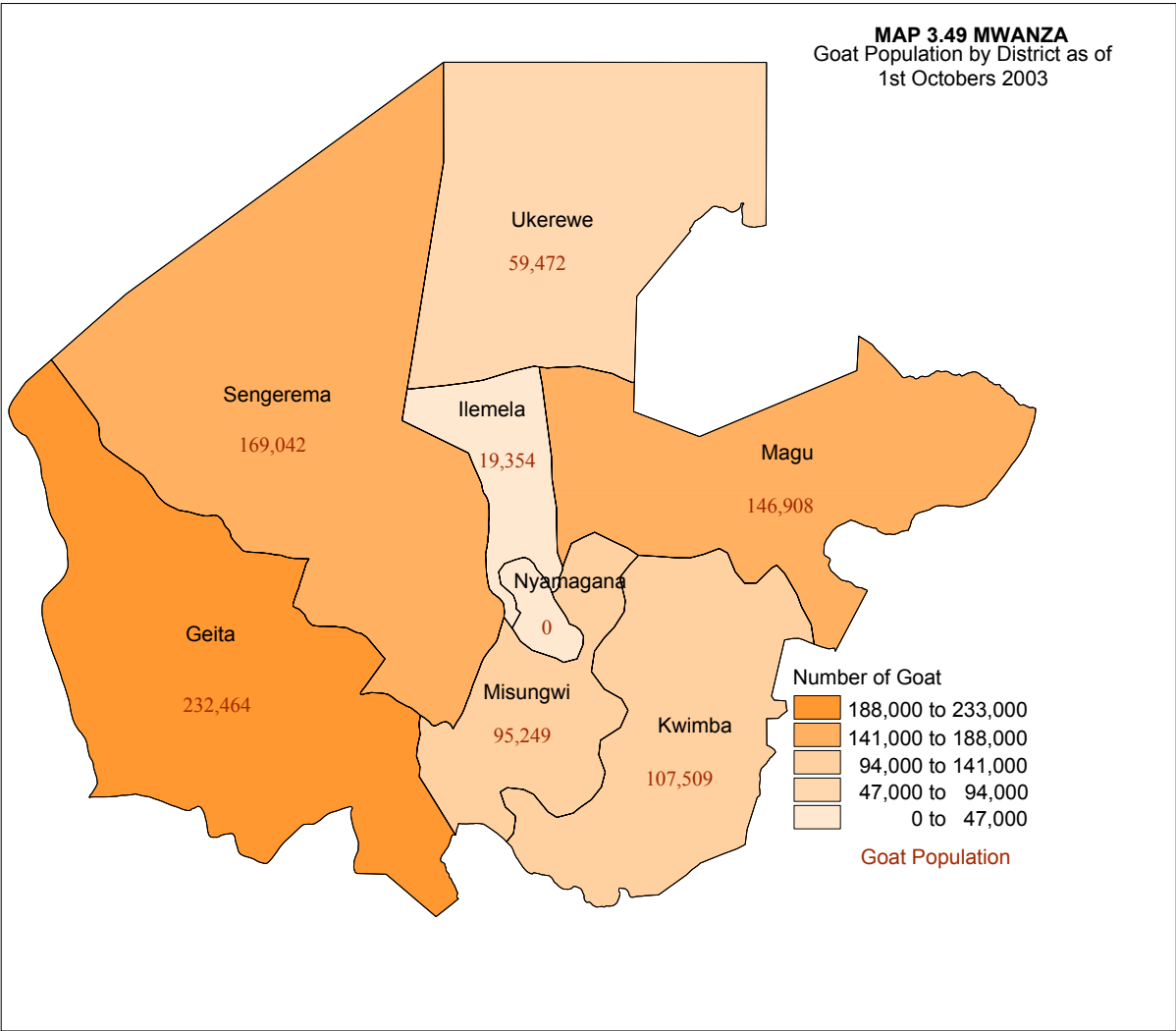
Goat Population

The number of goat-rearing-households in Mwanza region was 124,250, (37% of all agricultural households in the region) with a total of 829,997 goats giving an average of 7 head of goats per goat-rearing-household.

Geita had the largest number of goats (232,464 goats, 28% of all goats in the region) followed by Sengerema (169,042 goats, 20%), Magu (146,908 goats, 18%), Kwimba (107,509 goats, 13%), Missungwi (95,249 goats, 12%) Ukerewe (59,472 goats, 7%), Ilemela district has the least number of goats (19,354 goats,



2%) (Chart 3.126). However Missungwi district had the highest density (head 113 per km²) (Chart 3.126 and Map 3.49, 3.50)



Goat Herd Size

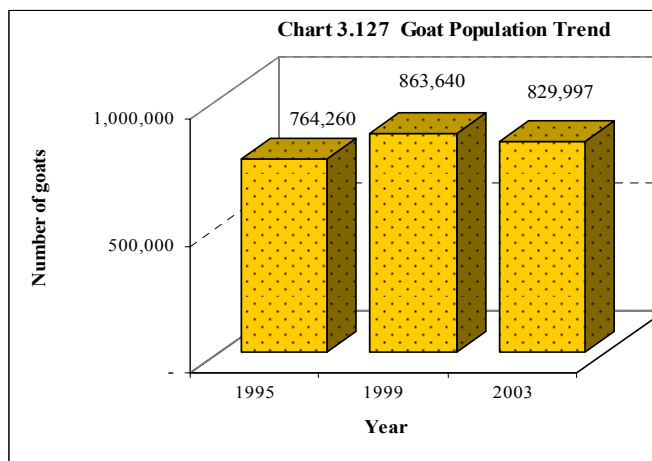
Forty eight percent of the goat-rearing households had herd of size 1-4 goats with an average of 3 goats per goat rearing households. About 91 percent of total goat-rearing households had herd of size 1-14 goats and owned 71 percent of the total goats in the region resulting in an average of 11 goats per goat-rearing households. The region had 755 households (0.6%) with herd sizes of 40 or more goats each (37,965 goats in total), resulting in an average of 50 goats per household.

Goat Breeds

Goat husbandry in the region was dominated by the indigenous breeds that constituted about 99.4 percent of the total goats in Mwanza region. Improved goats for meat and diary goats constituted 0.5 %and 0.1 percent of total goats respectively.

Goat Population Trend

The overall annual growth rate of goat population from 1995 to 2003 was 1.04 percent. The population of goats increased over the period 1995 to 1999 from 764,260 to 863,640 at an estimated annual rate of 3.1 percent. However from 1999 to 2003, the goat population decreased at annual rate of 0.9 percent (Chart 3.127).

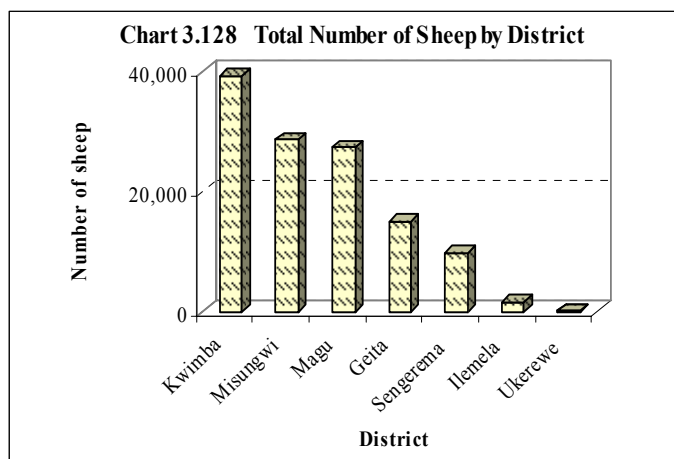


3.12.3 Sheep Production

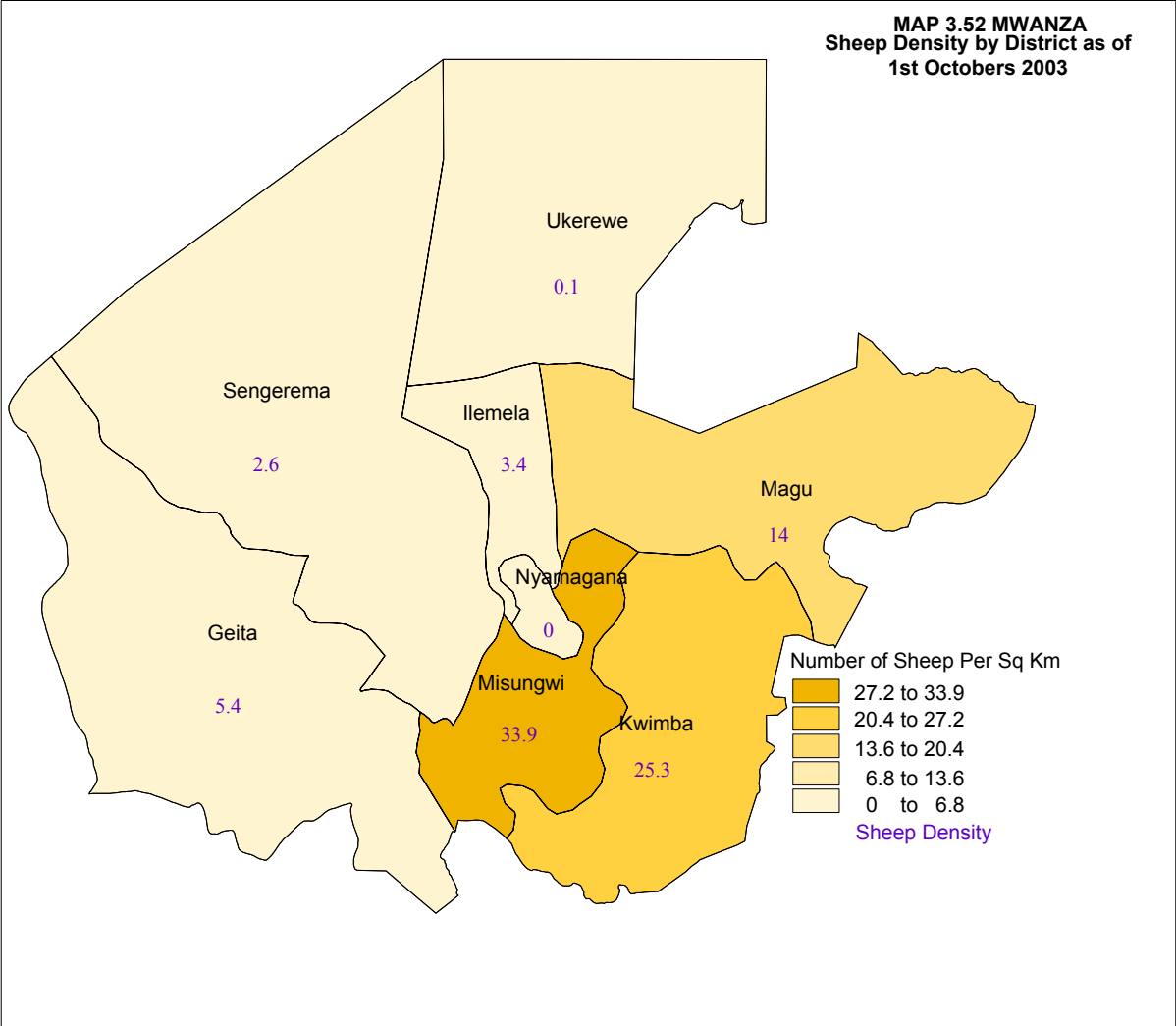
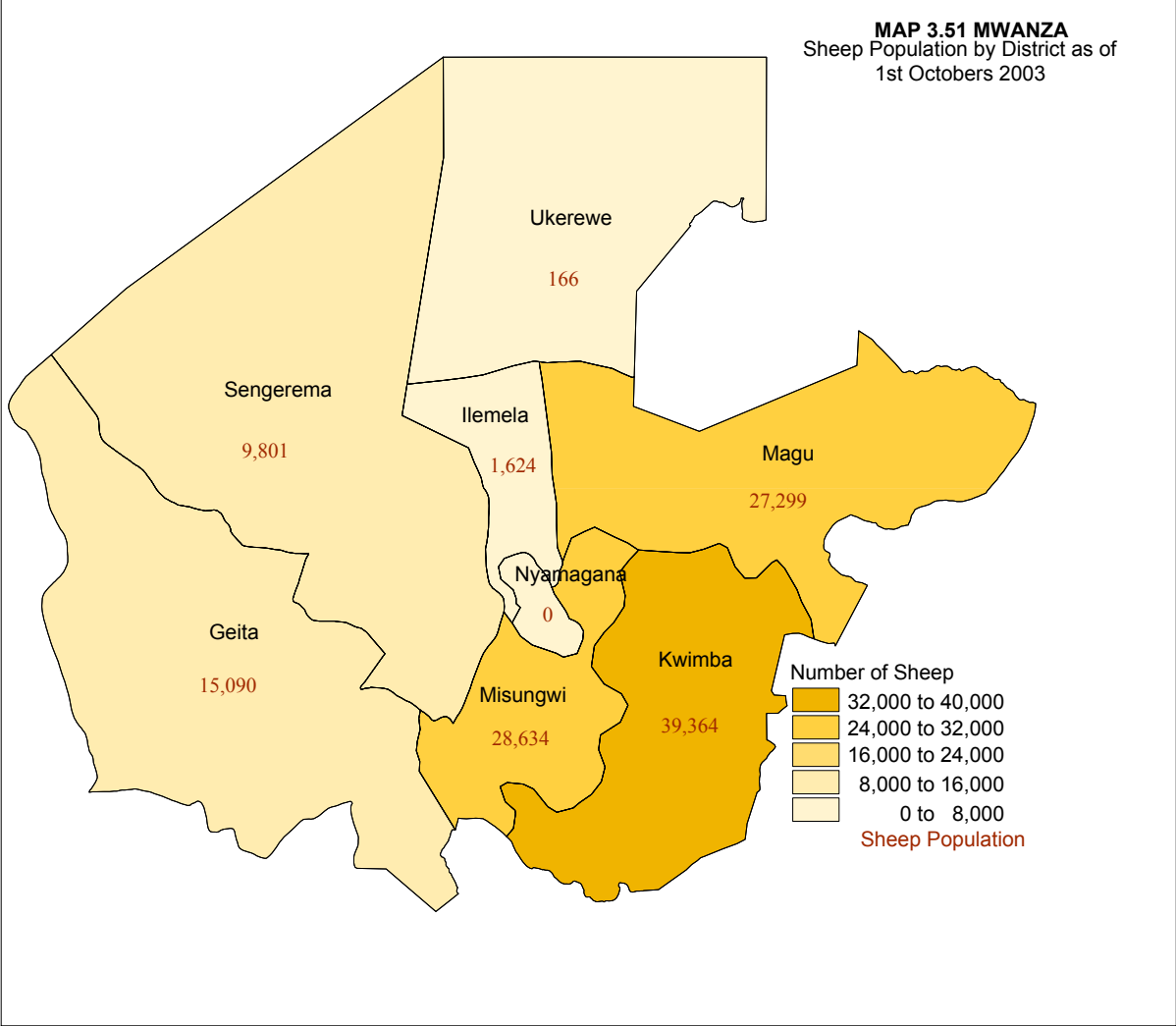
Sheep rearing was the third, most important livestock keeping activity in Mwanza region after cattle and goats. The region ranked 10 out of 21 Mainland regions and had 3 percent of all sheep on Tanzania Mainland.

Sheep Population

The number of sheep-rearing households was estimated at 24,433 (7% of all agricultural households in Mwanza region) rearing 121,978 sheep, giving an average of 5 heads of sheep per sheep-rearing household. The district with the largest number of sheep was Kwimba with 39,364 sheep, 32%) followed by Missungwi (28,634 sheep, 24%), Magu (27,299 sheep, 22%), Geita (15,090 sheep, 12%), Sengerema (9,801 sheep, 8%) Ilemela (1,624 sheep, 1.3%) and Ukerewe District had the least number of sheep (166 sheep, 0.1%) Chart 3.128 and Map 3.36).



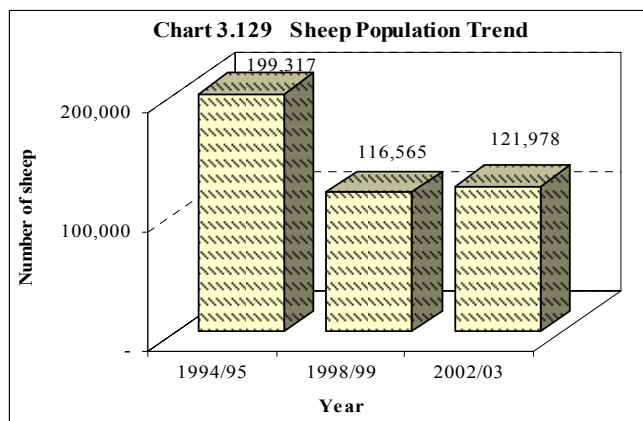
However Missungwi district had the highest density (34 head per km²). (Map.3.51 and 3.52)



Sheep rearing was dominated by indigenous breeds that constituted 99.9 percent of all sheep kept in the region. Only 0.05 percent of the total sheep in the region were improved breeds.

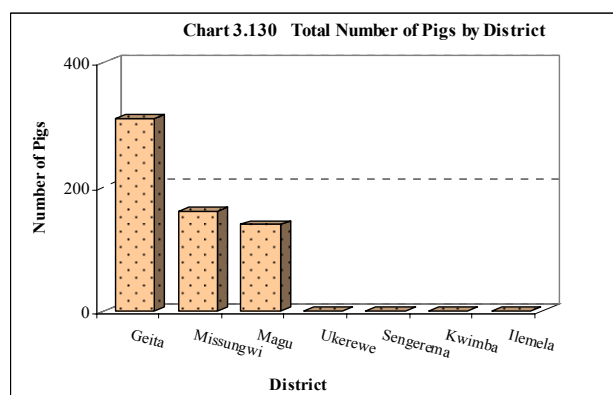
Sheep Population Trend

The overall annual growth rate of the sheep population for the eight year period from 1995 to 2003 is estimated at -5.9 percent. The population decreased at an annual rate of -17.4 percent from 199,317 in 1995 to 116,565 in 1999, and increased at 1.4 percent from 116,565 in 1999 to 121,978 in 2003 (Chart 3.129).



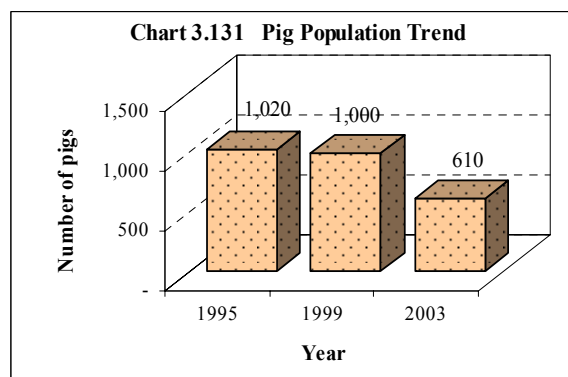
3.12.4 Pig Production

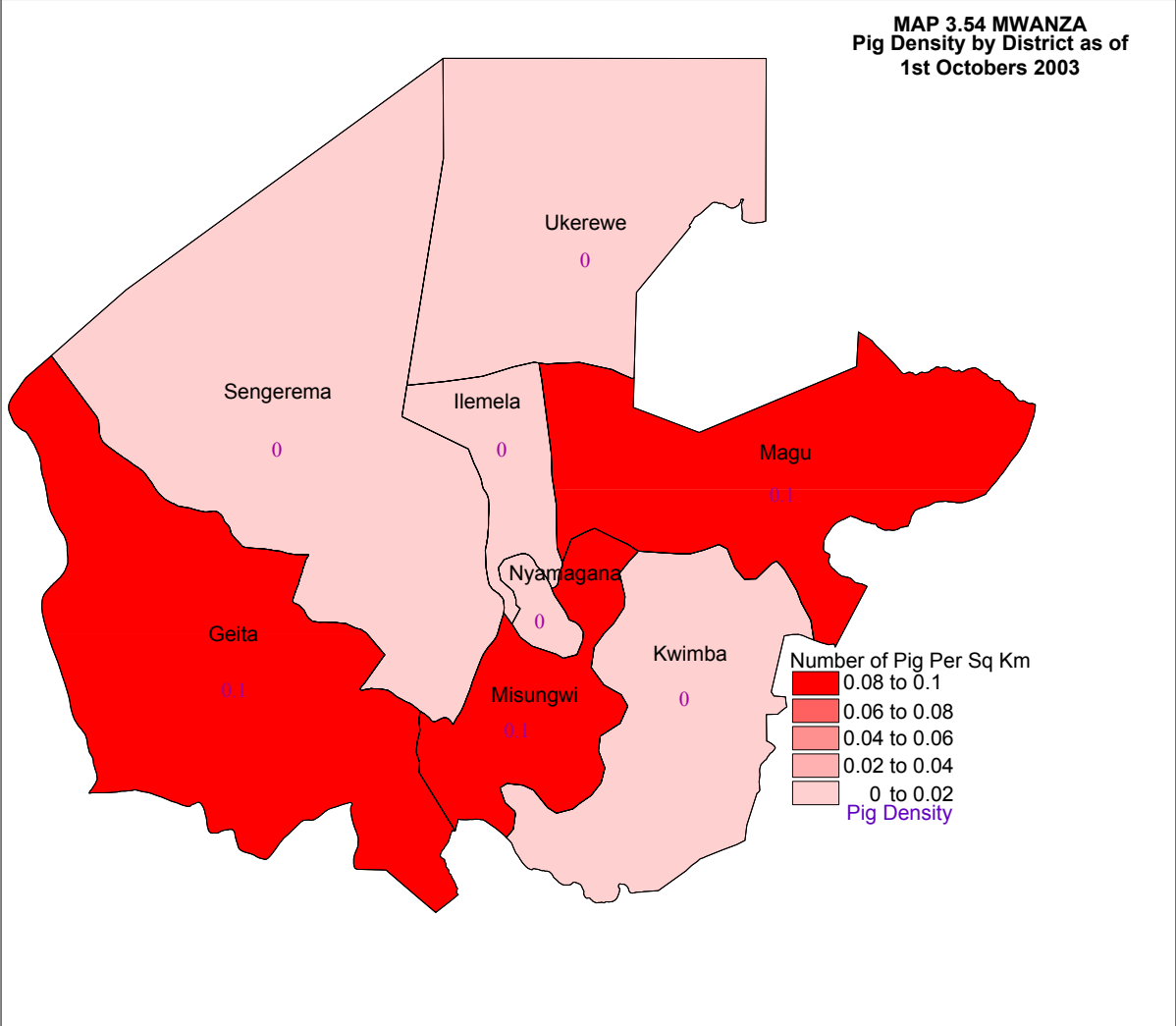
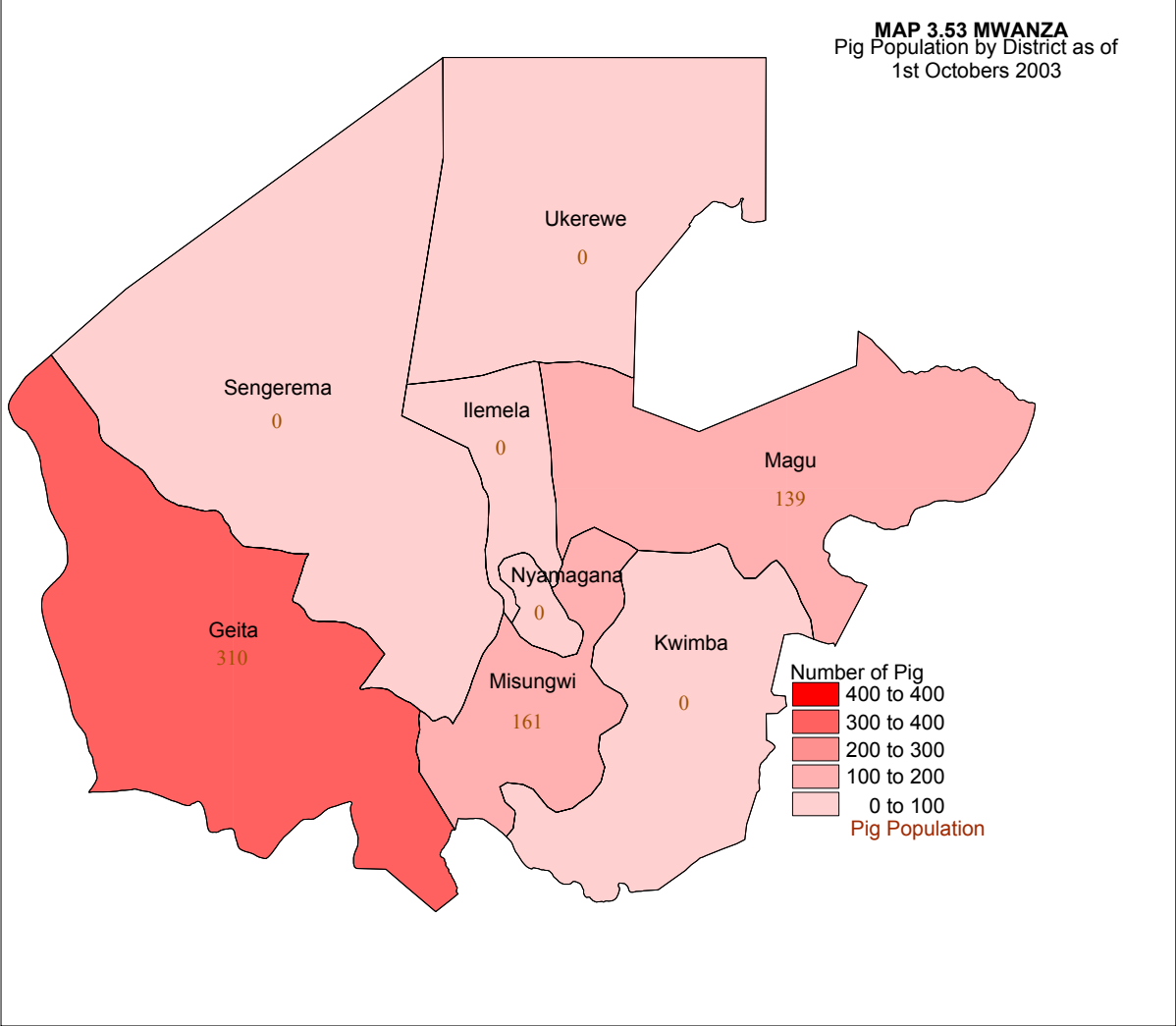
Pigs are the least important livestock keeping activity in the region after cattle, goats and sheep and the region had the smallest number of pigs on the compared to other regions with 0.05 percent of the pigs in the country. The number of pig-rearing agricultural households in Mwanza region was 76 (0.02% of the total agricultural households) rearing 610 pigs. This gives an average of 8 pigs per pig-rearing household. The district with the largest number of pigs was Geita with 310 pigs,(51 % of the total pig population in the region) followed by Missungwi (161 pigs, 26%) and Magu (138 pigs, 23 %) (Chart 3.130 and Map 3.43), However, Missungwi district had the highest density (0.2 head per km²) (Map 3.53 and 3.54).



Pig Population Trend

The overall annual growth rate of the pig population for the eight years period from 1995 to 2003 was -18.3 percent. During this period the population declined from 1020 in 1995 to 610. The growth rate dropped to -6.2 percent during the four years from 1999 to 2003 in which pig population decreased from 1000 to 610 (Chart 3.131)





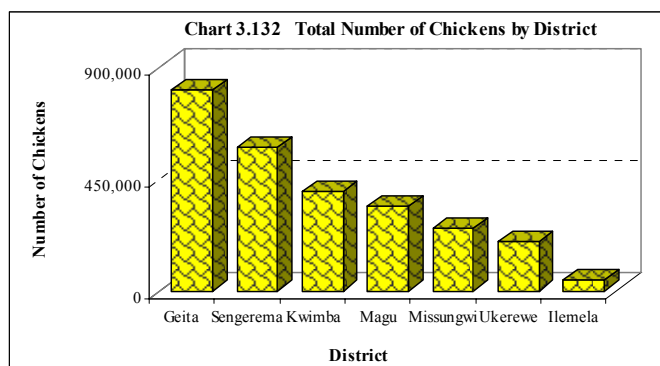
3.12.5 Chicken Production

The poultry sector in Mwanza region was dominated by chicken production. The region contributed 7.9 percent to the total chicken population for Tanzania Mainland.

Chicken Population

The number of households keeping chicken was 240,279 raising about 2,620,818 chickens. This gives an average of 11 chickens per chicken-rearing household. In terms of total number of chickens in the country Mwanza ranked second out of the 21 Mainland regions.

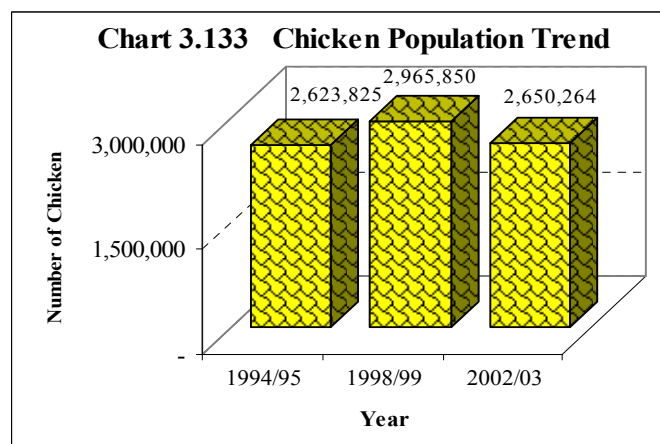
The District with largest number of chicken was Geita (468,300 chickens, 31% of the total number of chickens in the region) followed by Sengerema (577,470 22%), Kwimba (399,645 15%), Magu (342,581 13%), Missungwi (249,636 9%) and Ilemela (45,290 2%). (Chart 3.132 and Map 3.38). However Missungwi district had the highest density (295 head per km²) (Map 3.55 and 3.56)

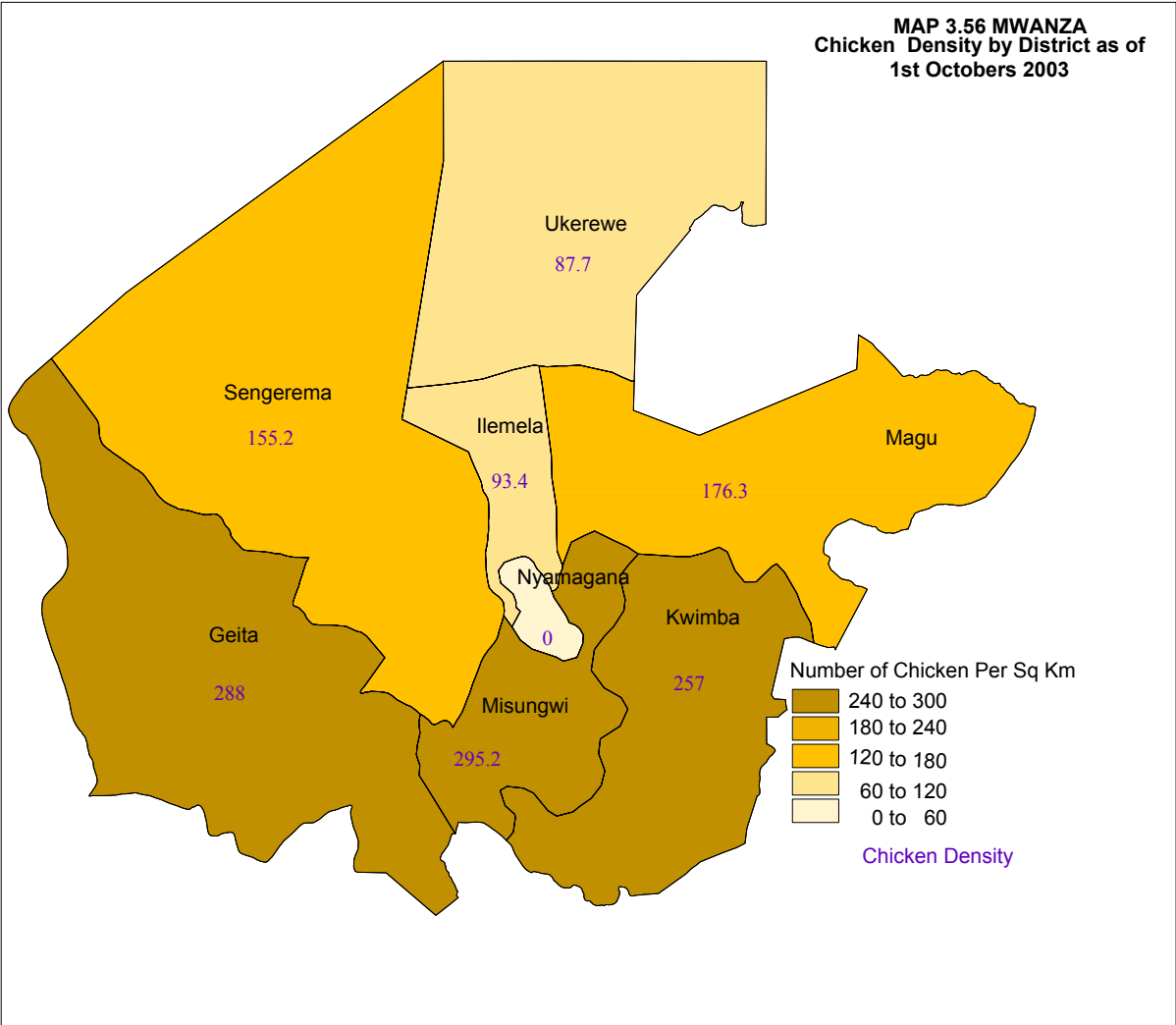
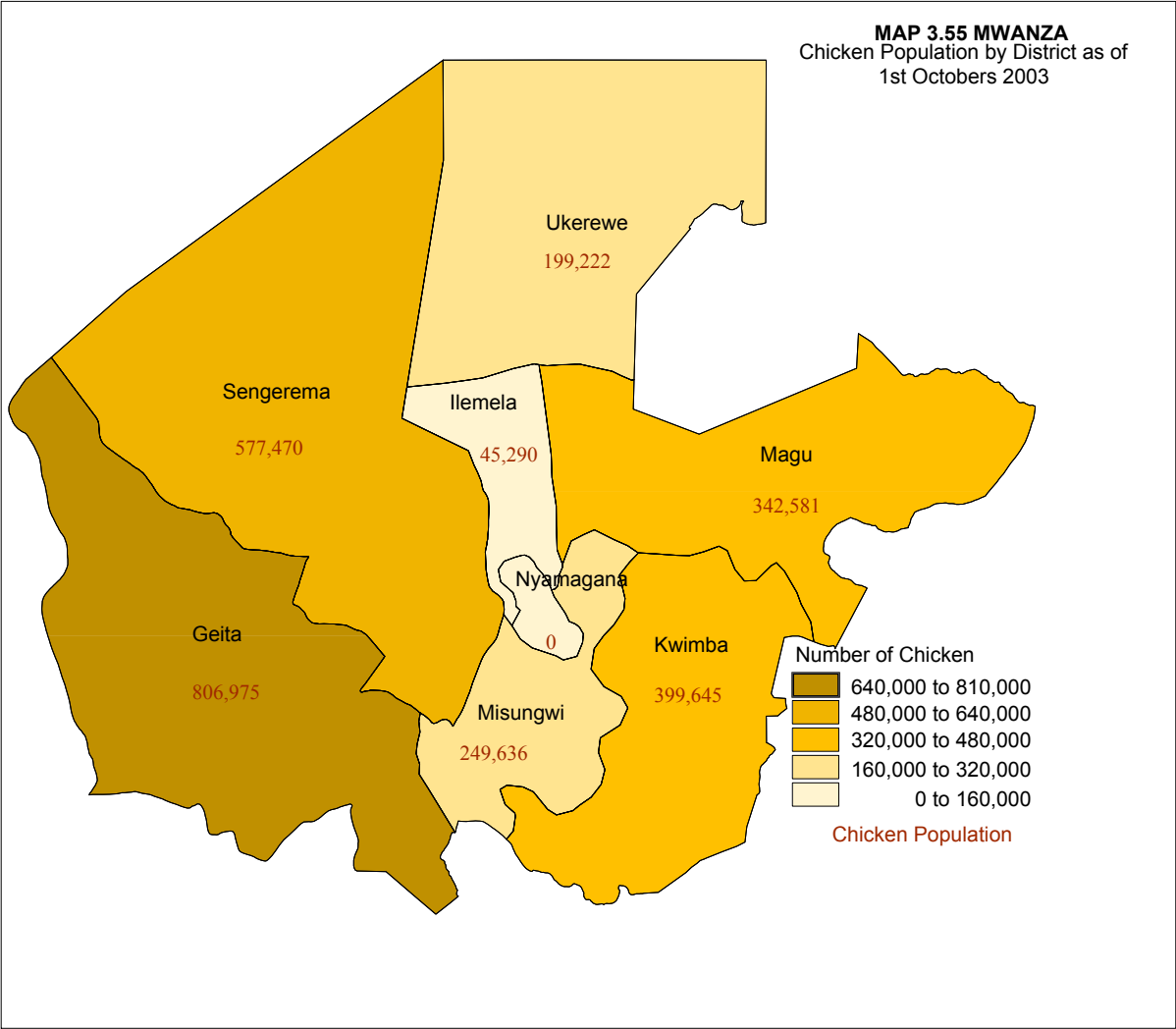


Chicken Population Trend

The overall annual population growth rate during the eight-year period from 1995 to 2003 was -0.2 percent. The population increased at a rate of 2.5 percent from 1995 to 1999 after which it decreased at a rate of -2.7 percent for the four year period from 1999 to 2003. (Chart 3.133).

Ninety eight percent of all chickens in Mwanza region were of indigenous breed. The dominance of indigenous breed makes the population trend for the indigenous chickens' more-or-less the same as that of the total chickens in the region.





Chicken Flock Size

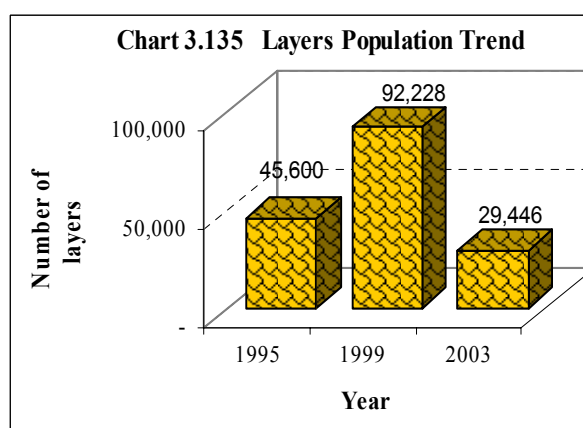
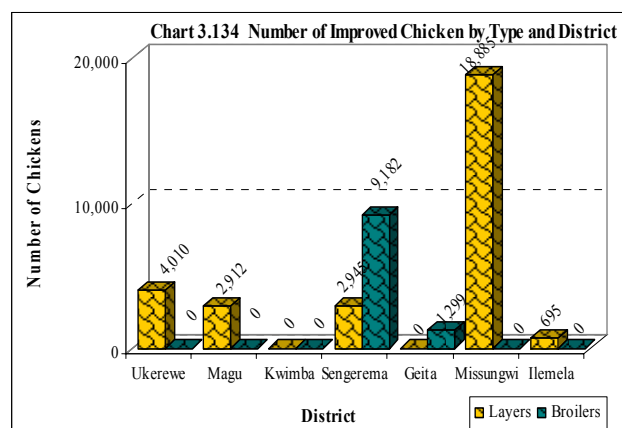
The results indicate that about 85 percent of all chicken-rearing households were keeping 1-19 chickens with an average of 8 chickens per holder. About 15 percent of holders were reported to be keeping the flock size of 20 to 99 chickens with an average of 29 chickens per holder. Only 0.2 percent of holders kept the flock sizes of more than 100 chickens at an average of 154 chickens per hold (Table 3:14)

Table 3:14 Total Number of Households and Chickens Raised by Flock Size

Flock size	Chicken rearing Households		Number of Chicken	Average chicken by households
	Number	%		
1 - 4	60,907	25	167,268	3
5 - 9	72,432	30	476,437	7
10 - 19	70,807	30	897,803	13
20 - 29	21,625	9	476,439	22
30 - 39	8,389	4	272,062	32
40 - 49	2,667	1	115,708	43
50 - 99	2,185	1	133,911	61
100+	528	0	81,189	154
Total	239,539	100	2,620,818	11

Improved chicken breeds (layers and broilers)

The Layer population in Mwanza region increased at an annual rate of 16.4 percent for the period of four years from 45,600 in 1995 to 92,228 in 1999, after which it decreased at rate of -2.6 percent to 29,446 in 2003. The number of improved chicken was most significant in Misungwi district followed by Sengerema district (Chart 3.134)



3.12.6. Other livestock

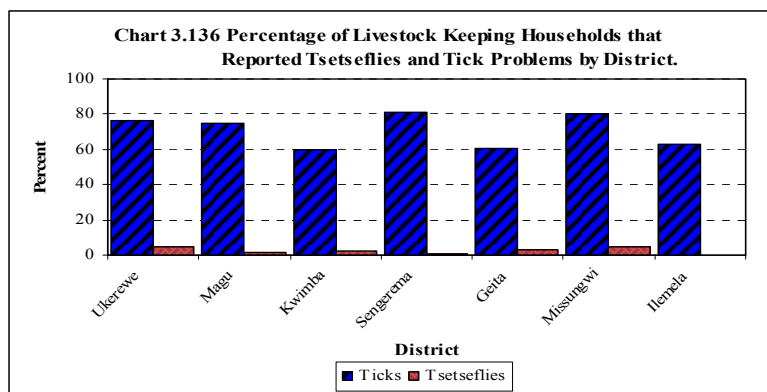
There were 152,904 ducks, 9786 turkeys, 17,570 rabbits and 9038 donkeys in rural agricultural households of Mwanza region. Table 3-15: gives the number of livestock kept in each district. The largest number of ducks in the region was found in Ukerewe district. (35% of all ducks in the region), followed by Sengerema (33%), Geita (16%), Magu (7%), Ilemela (4%), Missungwi (3%) and Kwimba (2%) (Table 3.13).

Table 3.15: Head Number of Other Livestock by Type of Livestock and District

District	Type of livestock				
	Ducks	Turkeys	Rabbits	Donkeys	Other
Ukerewe	54,204	232	3,761	0	0
Magu	10,683	4,972	13,809	0	0
Kwimba	2,465	0	0	6,271	0
Sengerema	49,784	4,354	0	0	1,461
Geita	25,237	0	0	2,415	1,299
Missungwi	5,248	229	0	353	0
Ilemela	5,283	0	0	0	0
Total	152,904	9,786	17,570	9,038	2,760

3.12.7 Pests and Parasites Incidences and Control

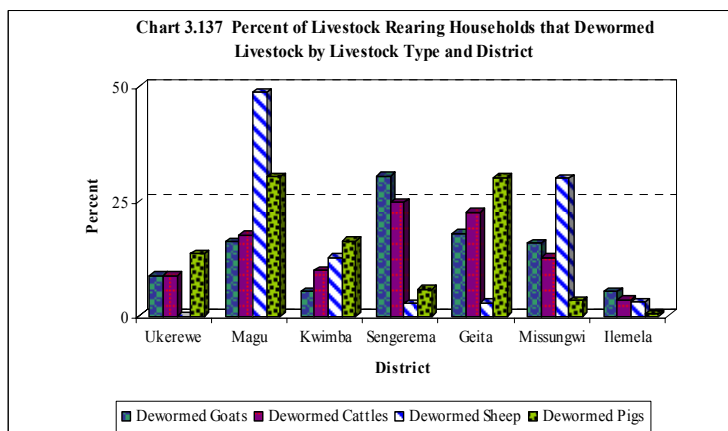
Ticks problems were reported by 71 percent of livestock-keeping households while tsetsefly problems were reported by 3 percent of such households. (Chart 3.136) shows that there was predominance of tick related diseases over tsetsefly related diseases. Incidences of both problems were highest in Missungwi district but lowest in Kwimba district. (Map 3.57).



The most popular method of controlling ticks was spraying with 68 percent of all livestock-rearing households in the region using that method. Other methods used were dipping (2.3%), smearing (2.0%) and other traditional methods like hand picking (6.4%). However, 21.3% of livestock-keeping households did not use any method.

Deworming

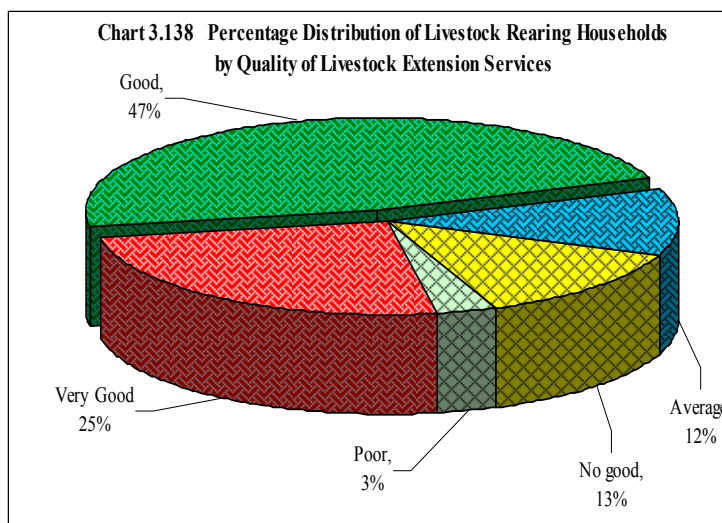
Livestock rearing households that dewormed their animals were 65,218 (46.3% of the total livestock rearing households in the region). Deworming was practiced in 52,413 cattle households (8.4%), 25,927 goat households (6.6%), 25,566 sheep households and (2.9%), 7,320 pig households (4.5%) (Chart 3.137).



3.12.8. Access to livestock services

Access to Livestock Extension Services

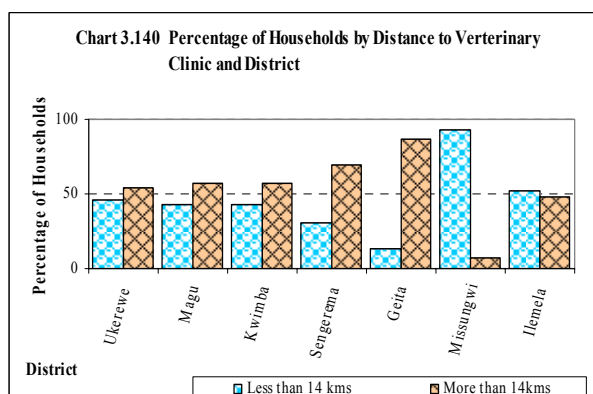
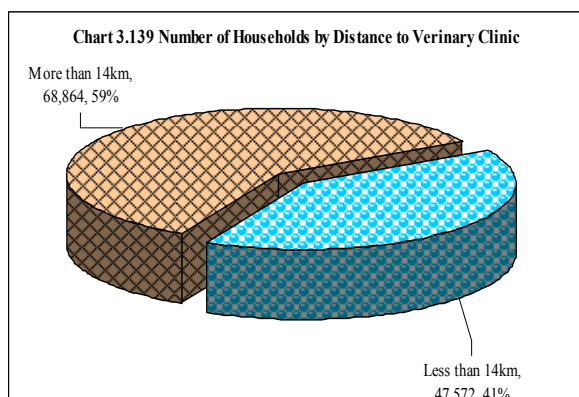
The total number of households that received livestock advice was 34,262 representing 24 percent of the total livestock rearing households and 10.1 percent of the agricultural households in the region. The main livestock extension agent was the government which provided service to about 20.2 percent of all households receiving livestock extension services. The rest of the households got services from NGOs/development projects (20.0%); Co-operatives (20.0%) and large-scale farmers (19.9%).



About 47 percent of livestock rearing households described the general quality of livestock extension services as being good, 12 percent said they were average and 25 percent said they were very good. However 13 percent of the livestock rearing households said the quality was not good whilst 3 percent described them as poor. (Chart 3.138)

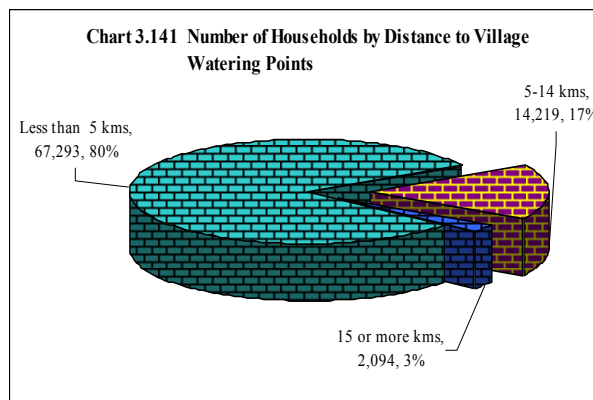
Access to Veterinary Clinic

Many veterinary clinics were located very far from livestock rearing households. About 59 percent of the livestock rearing households live more than 14 kms from a veterinary clinic. Only 41 percent of the them accessed services within 14 kms from their dwellings (Table 3.14). The district with the worst access to veterinary clinics where 85 percent of the households living more than 14 km from a veterinary clinic. Missungwi district was the least affected with only 7 percent of the households living more than 14 kilometers from the veterinary clinic.

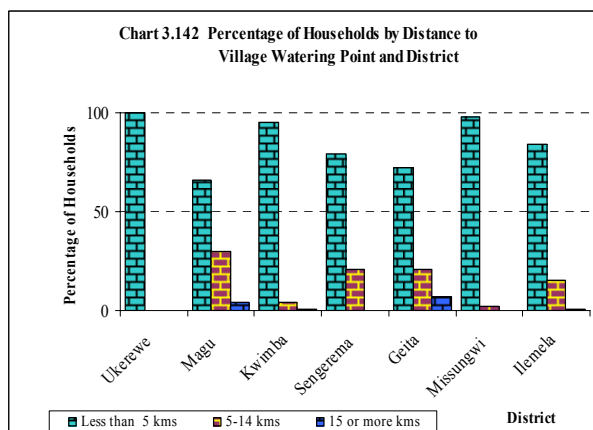


3.12.8.3 Access to Village Watering Points/Dam

The number of livestock rearing households residing less than 5 kms from the nearest watering point was 67,294 (80% of livestock rearing households in Mwanza region) whilst 14,222 households (17%) resided between 5 and 14 kms. However, 2,144 households (3%) had to travel a distance of 15 km or more to the nearest watering point (Chart 3.142)



Ukerewe district had the best access to village watering points with the majority of livestock rearing households residing within 5 kms from the nearest watering point. This is followed by Missungwi, Kwimba and Ilemela districts. Also in Magu district about 30 percent of the livestock rearing households had to travel a distance of more than five kilometers to the nearest watering point (Chart 3.142).

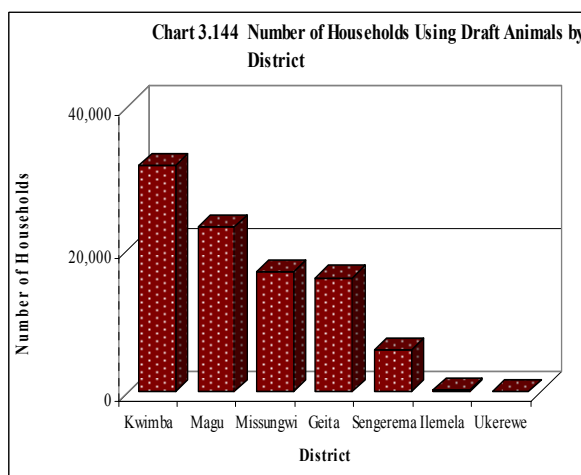
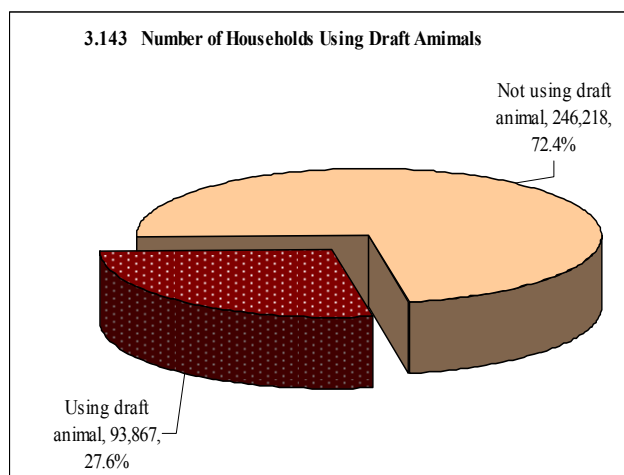


3.12.9. Animal Contribution to Crop Production

Use of Draft Power

Use of draft animals to cultivate land in Mwanza region was very limited with only 93,867 households (27.6% of the total agricultural households in the region) using them (Chart 3.139).

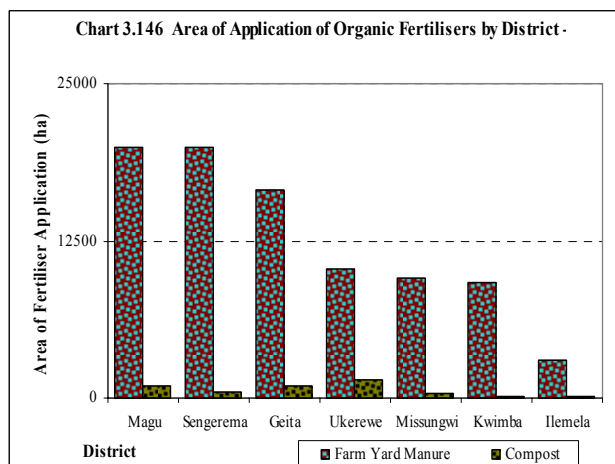
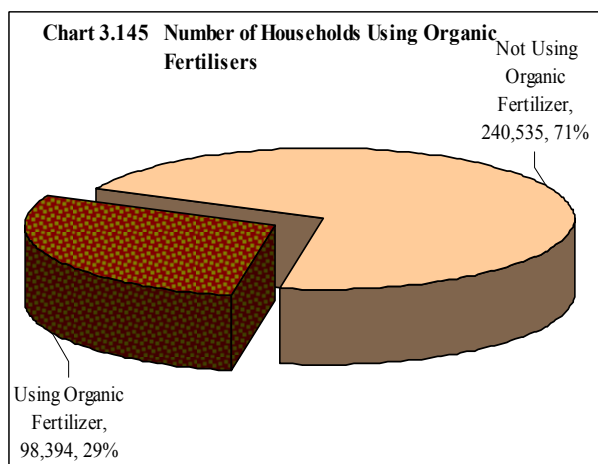
The number of households that used draft animals in Kwimba was 31,837 representing (34 percent of the households using draft animals in the region) Magu they were 23,088 households (25%), Missungwi, 16,838 households, (18%), Geita 16,044 households, (17%), Sengerema, 5,899 households, (6%), Ilemela 161 households, (0.2%). Use of draft animals was not reported in Ukerewe district.

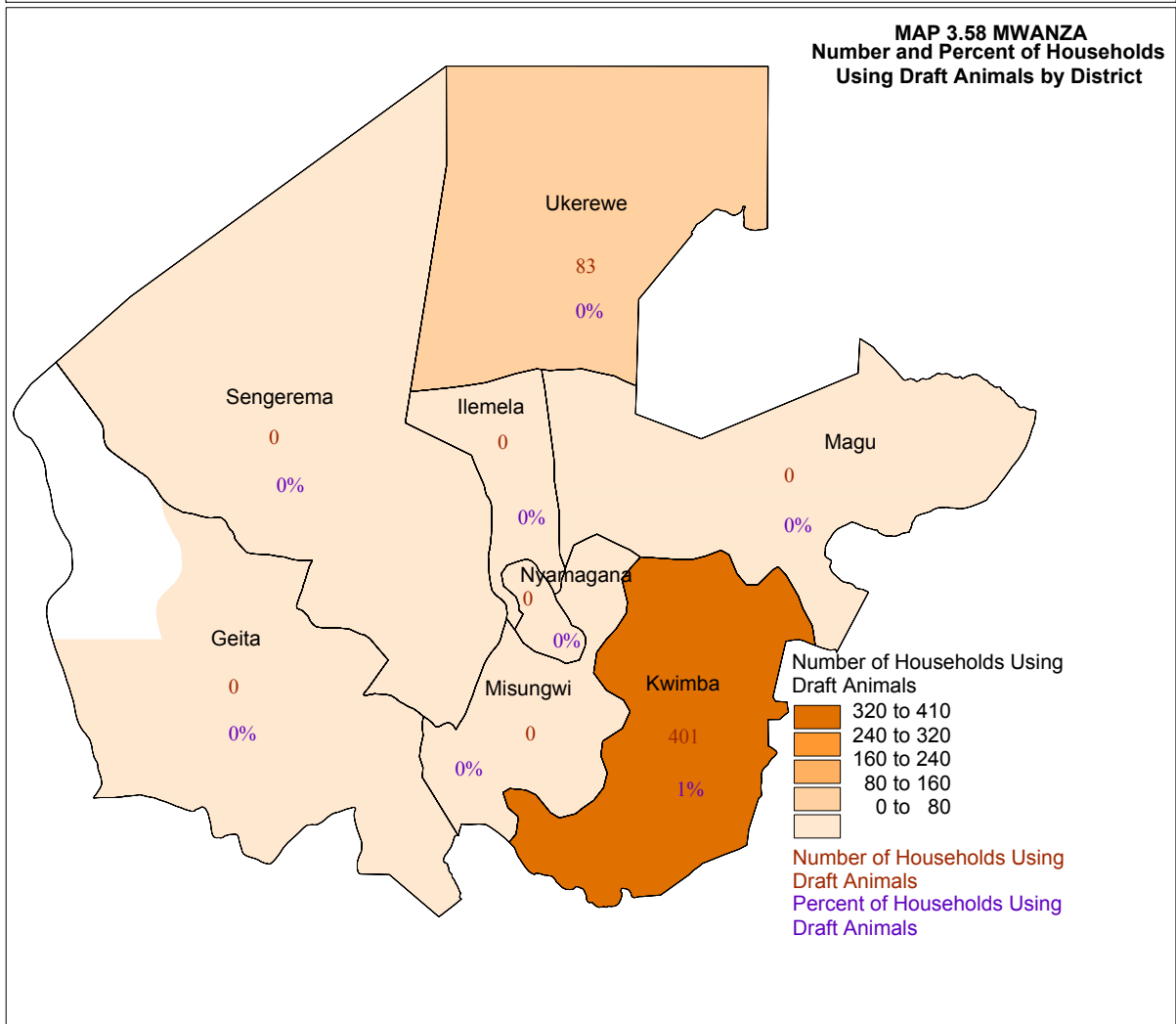
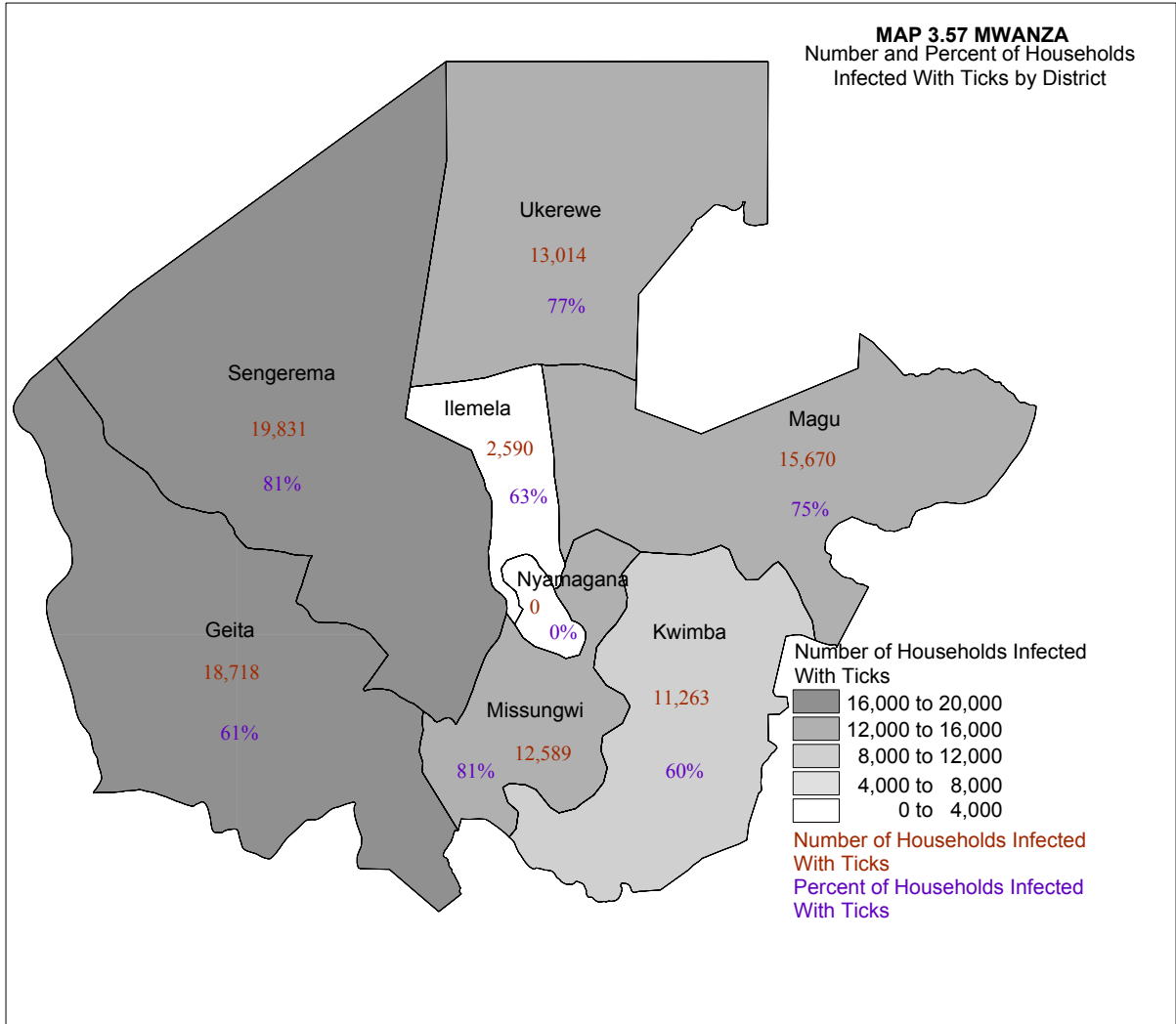


The region had 335,501 oxen (with 141,016 oxen in Magu and 89,023 in Geita) that were used to cultivate 211,975 hectares of land. This representing only 11.5% of the total oxen found on the Mainland. The largest area cultivated using oxen was found in Magu district 68,708 ha, (32.4% of the total area cultivated using oxen).

Use of Farm Yard Manure

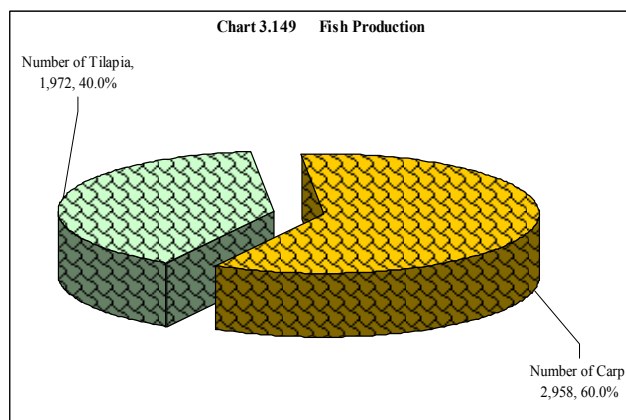
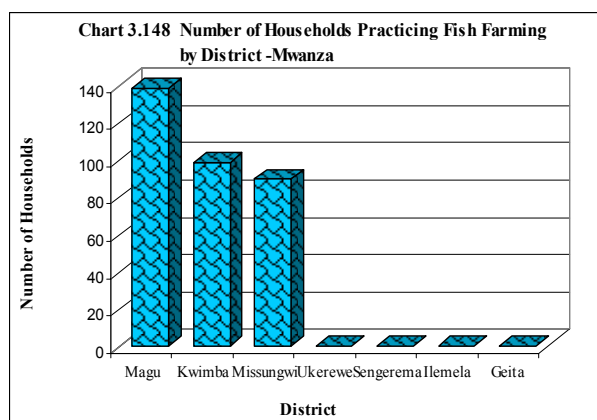
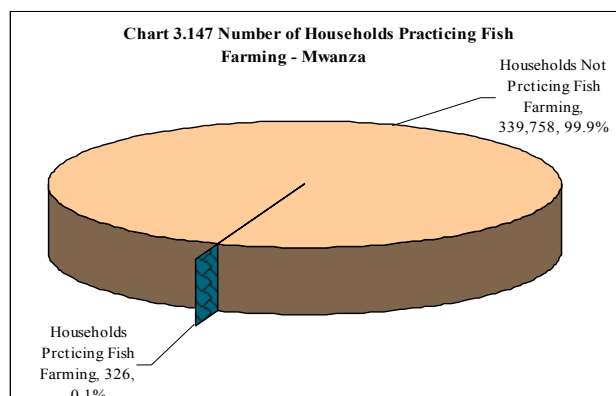
The number of households using mostly farm yard manure in Mwanza region was 98,394 (0.3% of the total crop growing households in the region) (Chart 3.145). The total area applied with organic fertilizer was 92,815 hectares. Magu and Sengerema had the largest area with organic manure application (Chart 3.146 and Map 3.59).





3.13 Fish Farming

The number of households involved in fish farming in Mwanza region was 326, representing 0.1 percent of the total agricultural households in the region (Chart 3.148). Magu was the leading district with 138 households (42% of agricultural households involved in fish farming). This was followed by Kwimba (99 households, 30%) and Missungwi (336 households, 27%). Fish farming was not practiced in the remaining five districts. (Chart 3.144 and map 3.59).



The main source of fingerlings was the NGO's/Projects which provided fingerling to 99 percent of the fish farming households. All fish farming households in the region used the dug-out pond system and the main fish species is Tilapia. The number of fish harvested in Mwanza region was 4,930 of which 1,972 were Tilapia (Chart 3.149). None of the fish farming households sold fish.

3.14 Access to Infrastructure and Other Services

The results indicate that among the evaluated services, the regional capital was the service that was located furthest from most of the household dwellings. It was located at an average distance of 88.3 kilometers from the agricultural household's dwellings. Other services and their respective average distances in kilometers from the dwellings were tarmac road (52.3), tertiary market (41.4), hospital (31), secondary markets (21.1) secondary school (12.6), health clinic (6.0), all weather roads (4.2), primary market (2.5), primary school (2.5) and feeder road (1.3) (Table 3.15).

Table 3.16: Mean Distances from Holders Dwellings to Infrastructures and Services by Districts

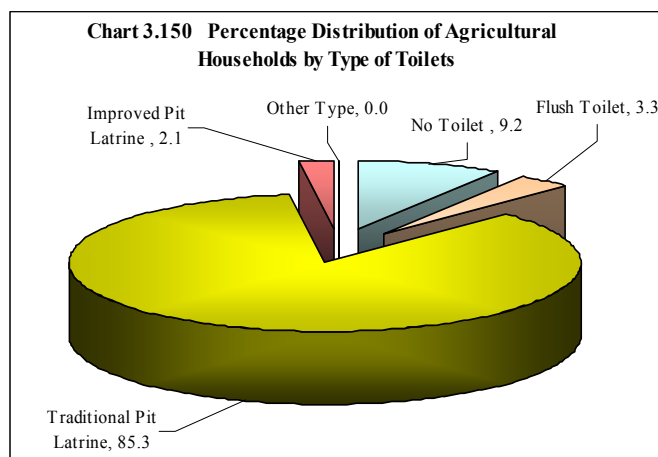
District	Mean Distance from Household Dwelling to Infrastructures and Services by District.										
	Secondary School	Primary School	All weather road	Feeder road	Hospital	Health Clinic	Regional Capital	Primary Market	Secondary Market	Tertiary Market	Tarmac road
Ukerewe	17.9	1.1	0.9	0.8	18	4.1	70.0	1.1	11.8	21.5	22.7
Magu	12.5	3.1	3.0	2.0	25	7.3	79.0	3.1	19.3	30.4	14.5
Kwimba	9.6	2.5	4.7	1.7	26	4.8	85.6	2.5	11.9	28.8	27.4
Sengerema	12.1	1.6	4.3	0.6	30	6.3	64.7	1.6	34.9	33.5	59.8
Geita	13.5	3.4	5.6	1.4	45	7.1	136.4	3.4	23.9	65.1	110.5
Missungwi	11.1	2.0	5.3	1.2	26	4.3	63.8	2.0	15.6	55.0	19.6
Illemela	10.8	1.8	1.7	1.0	16	5.0	20.9	1.8	11.5	17.4	9.7
Total	12.6	2.5	4.2	1.3	31	6.0	88.3	2.5	21.1	41.4	52.3

3.15 Poverty Indicators

The agricultural census collected data on poverty for the purpose of providing a base for tracking progress in poverty reduction strategies undertaken by the government

3.15.1 Type of toilets

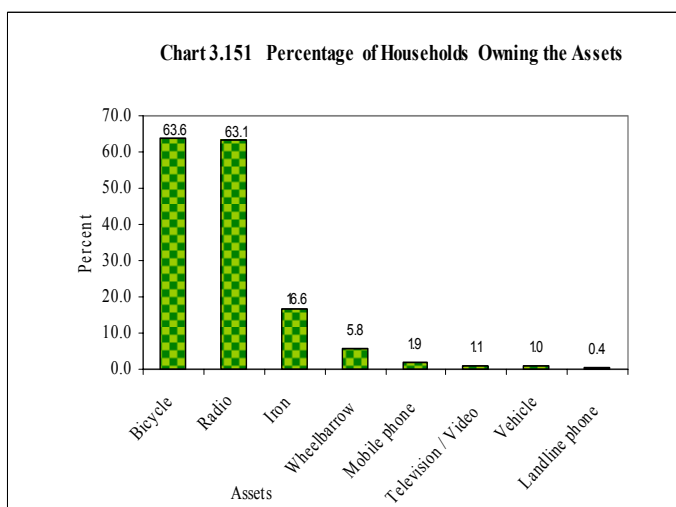
A large number of rural agricultural households use traditional pit latrines (290,238 households, 85.3% of all rural agricultural households), 7,164 households (2.1%) use improved pit latrines and 11,317 (3.3%) use flush toilets. However, 31,365 households (9.2%) had no toilet facilities (Chart 3.150).



The distribution of the households without toilets within the region indicates that 34.6 percent of them were found in Geita district and 19.2 percent were from Kwimba. The percentages of households without toilets in other districts were as follows Sengerema (18.2%), Magu (11.0%), Ukerewe (8.2%), Missungwi(6.0%) and Ilemela (2.8%). (Map 3.60)

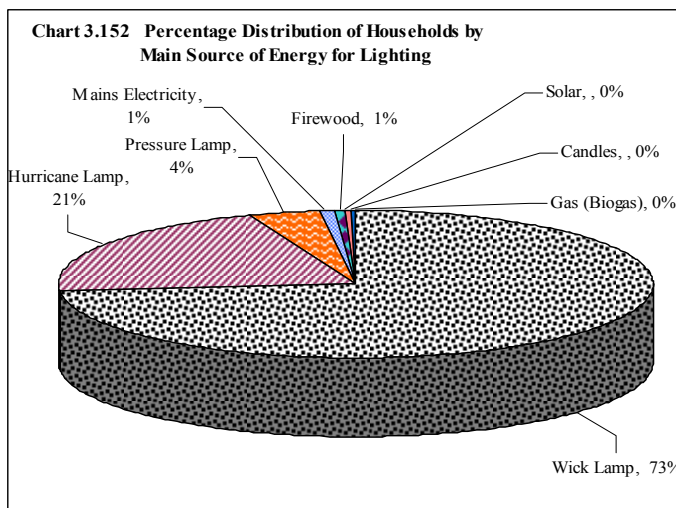
3.15.2 Household's Assets

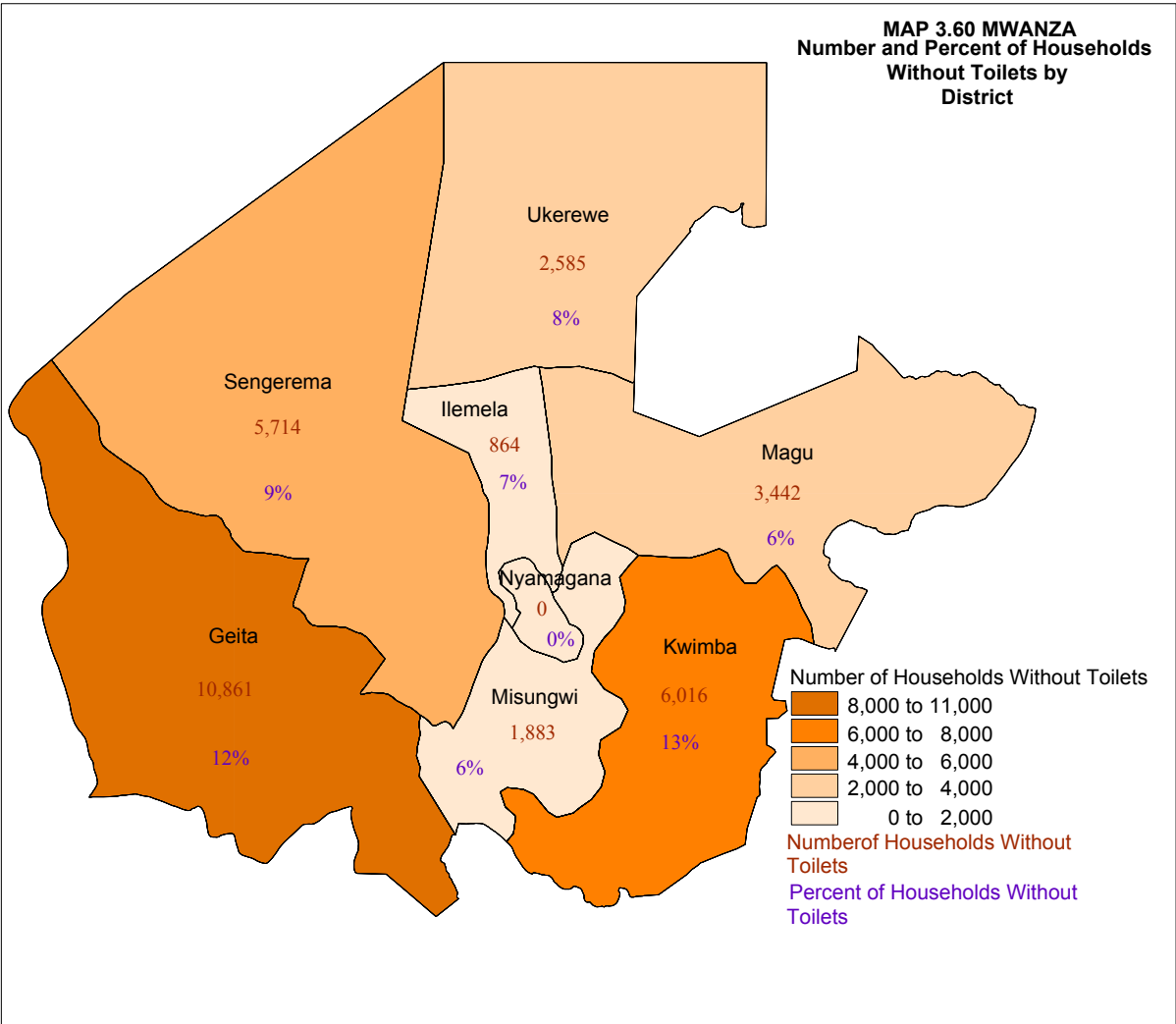
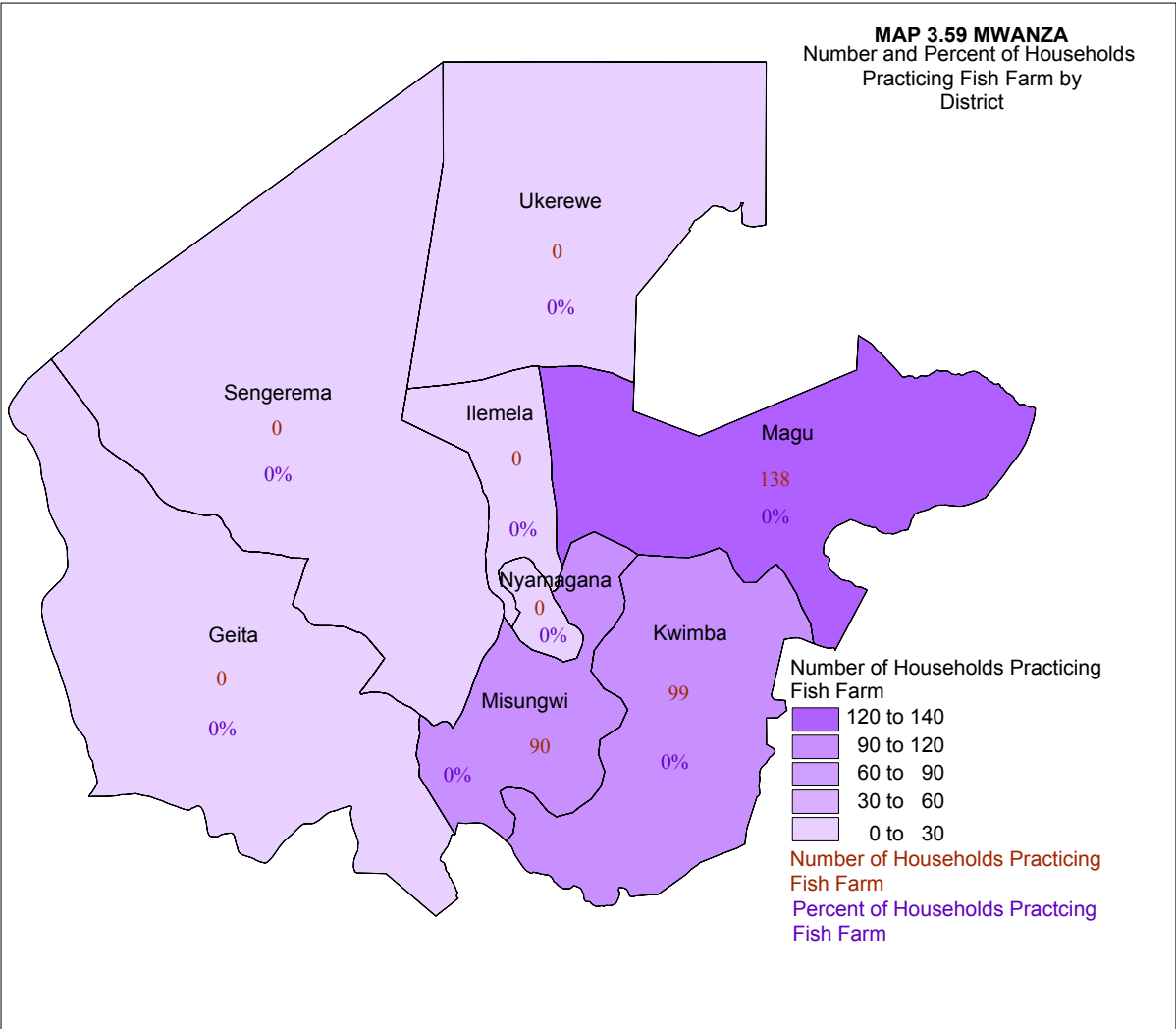
Bicycles are owned by many rural agricultural households in Mwanza region with 216,332 households (63.6% of the agricultural households in the region) owning this asset, followed by radio (214,481 households, 63.1%), iron (56,452 households, 16.6%), wheelbarrow (19,607 households, 5.8%), mobile phone (6,390 households 1.9%), television/video (3,697 households, 1.1%), vehicle (2891 households 0.8%) and landline phone (177 households, 0.4%) (Chart 3.152).



3.15.3 Sources of Lighting Energy

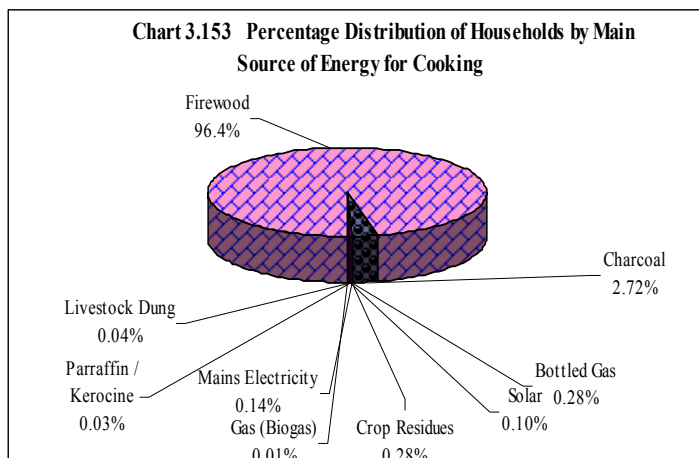
Wick lamp is the most common source of lighting energy in the region with 73.6 percent of the total rural households using this source of energy followed by hurricane lamp (20.5%), pressure lamp (4.0%), mains electricity (0.8%), firewood (0.6%), solar (0.2%), candle (0.1%) and gas or biogas (0.1%) (Chart 3.148).





3.15.4 Sources of Energy for Cooking

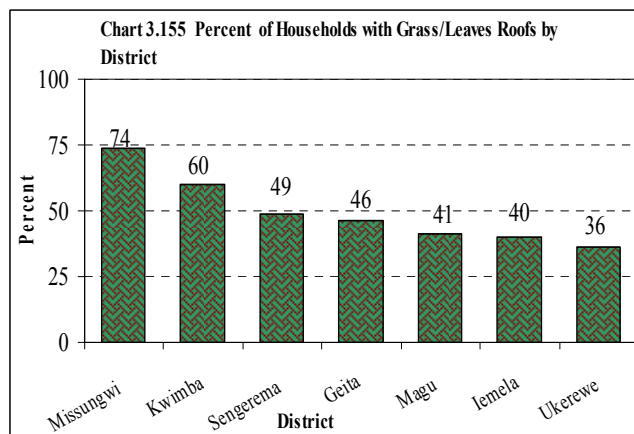
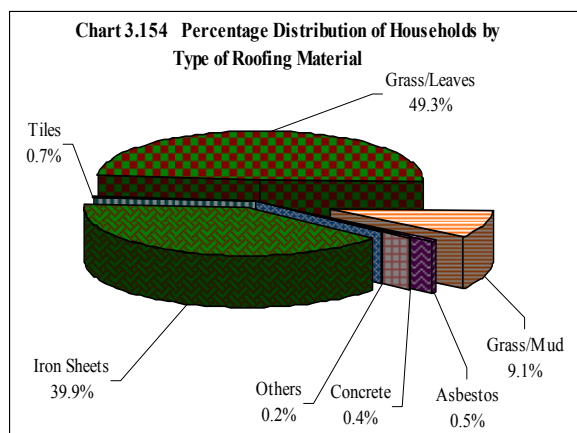
The most prevalent source of energy for cooking was firewood, which was used by 96.4 percent of all rural agricultural households in Mwanza region. This is followed by charcoal (2.7%). The rest of energy sources accounted for 0.88 percent. These were bottled gas (0.28%), crop residues (0.28%), mains electricity (0.14%), solar (0.0%), livestock dung (0.04%), paraffin/kerosene (0.03%) and gas/biogas (0.01%).



3.15.5 Roofing Materials

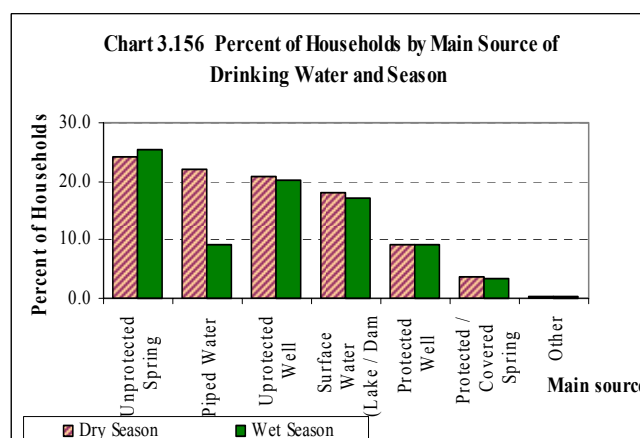
The most common material used for roofing the main dwelling was grass and/or leaves and it was used by 49.2 percent of the rural agricultural households. However this was closely followed by iron sheets (39.9%), then grass/mud (9.1%), tiles (0.7%), asbestos (0.5%), concrete (0.4%) and others (0.2%). (Chart 3.154), Map 3.61

Missungwi district had the highest percentage of households with grass/leaves roofs (74%), and was followed by Kwimba (60%), Sengerema (49%), Geita (46%), Magu (41%), Ilemela (40%) and Ukerewe (36%). (Chart 3.155)



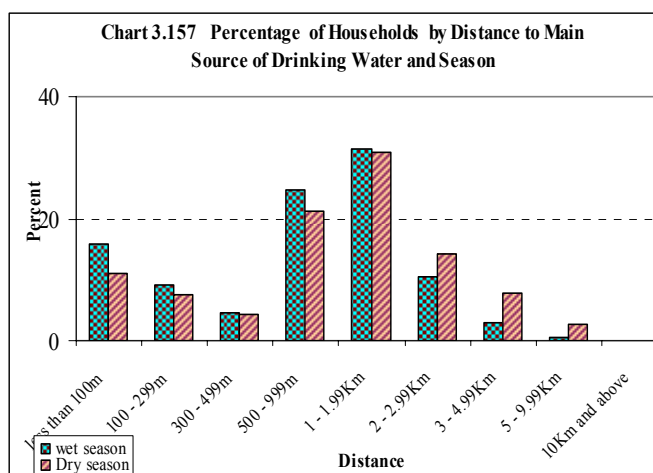
3.15.6 Access to Drinking Water

The main source of drinking water for agricultural households in Mwanza region was the unprotected spring (36 percent of households use unprotected spring during the wet season and 24 percent of the households during the dry seasons). This was followed by piped water 9 percent during the wet season and 22 percent during the dry season, unprotected well (20 percent of households during the wet season and 21 percent during the dry season), surface water (17 percent during the wet season and 18 percent during the dry season), protected well (9 percent during the wet season and 8 percent during the dry season), protected/covered spring (3 percent during the wet season and 4 percent during the dry season), and other (1 percent during the wet season and 0 percent during the dry season).



protected well (9 percent of households for each season) and protected/covered spring (4 percent of households for each season) (Chart 3.152)

About 55 percent of the rural agricultural households in Mwanza region obtain drinking water within a distance of less than one kilometer during wet season compared to 44 percent of the households during the dry season. However, 45 percent of agricultural households obtained drinking water from a distance of one or more kilometers during wet compared to 56 percent of households in the dry season. The most common distance from the source of drinking water was between 1 and 2 km (Chart 3.157).



3.15.7 Food Consumption Pattern

Number of Meals per Day

The majority of households in Mwanza region normally had two meals per day (72.2 percent of the households in the region), this is followed by 3 meals per day (25.8 percent) and 1 meal per day (1.5 percent). Only 0.5 percent of the households have 4 meals per day (Chart 3.158).

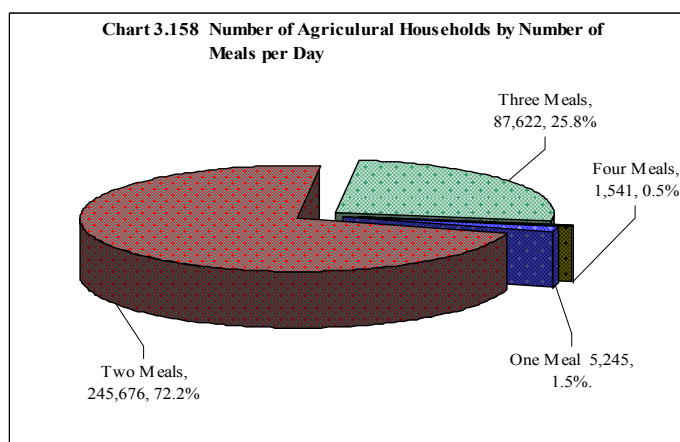
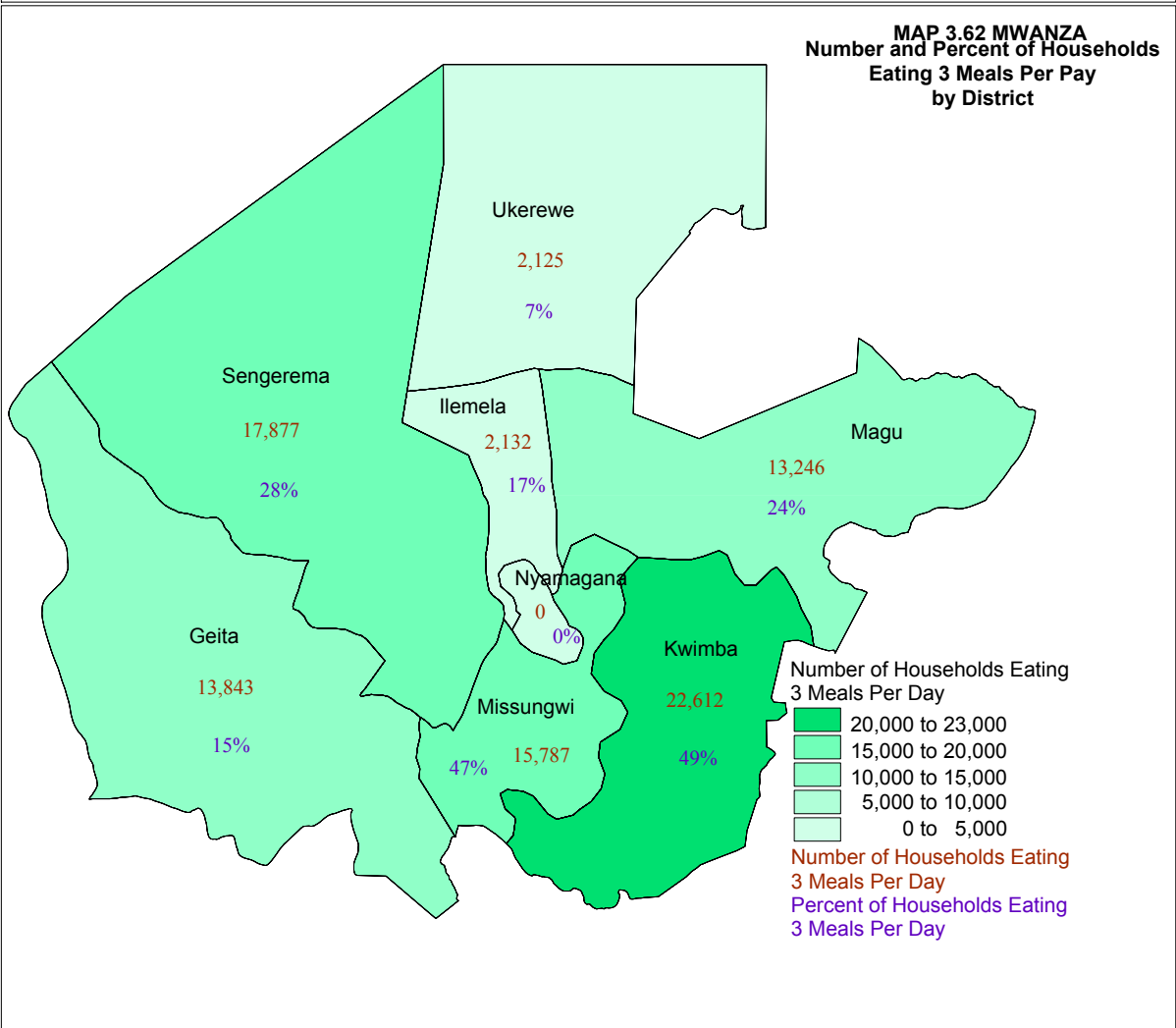
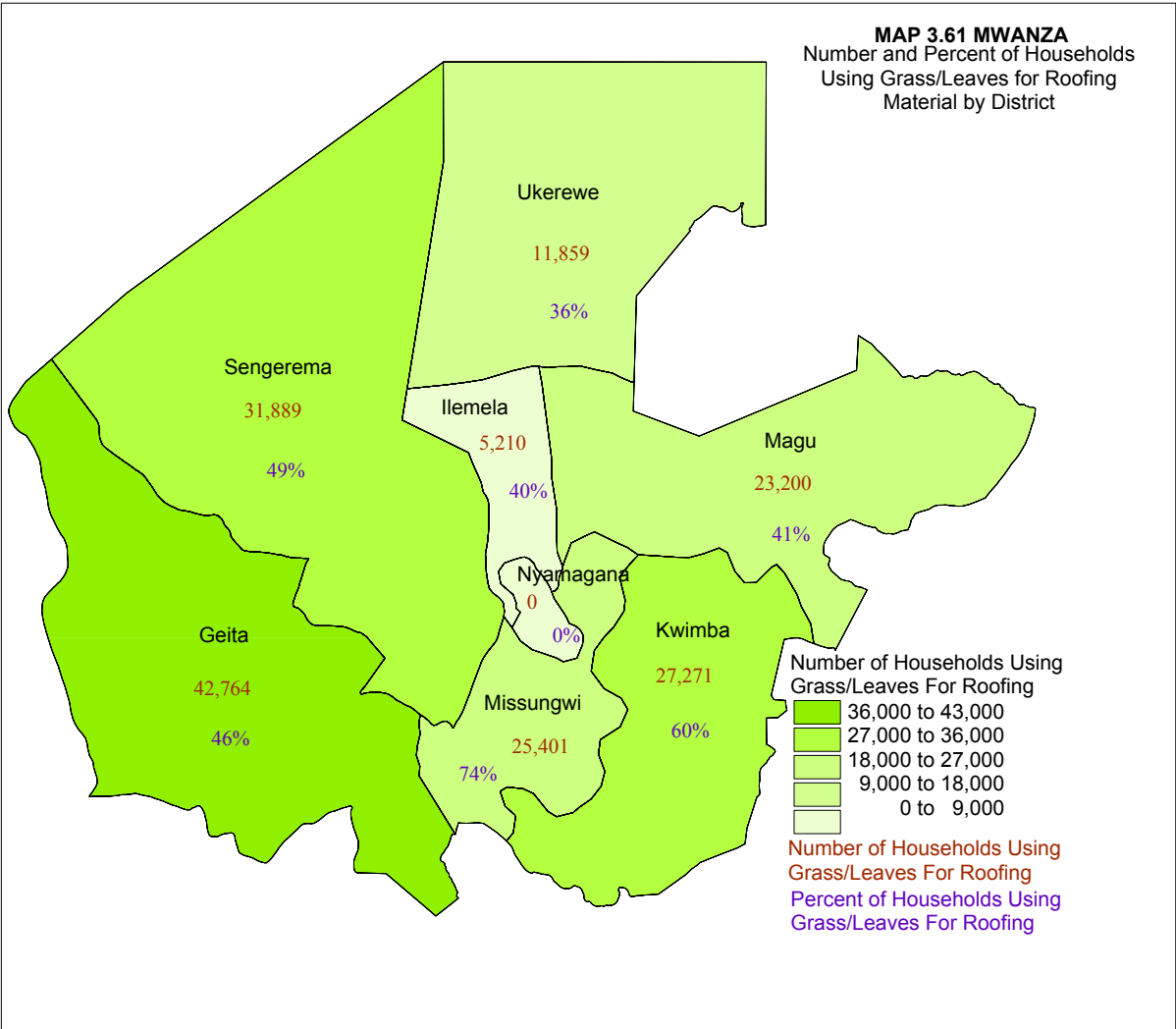


Chart 3.17: Number of Households by Number of Meals the Household Normally has per Day and District

District	Number of meals per day								Total
	One	%	Two	%	Three	%	Four	%	
Ukerewe	83	0.3	30,548	92.8	2,125	6.5	153	0.5	32,909
Magu	1,488	2.6	41,378	73.4	13,246	23.5	247	0.4	56,359
Kwimba	206	0.4	22,895	50.0	22,612	49.4	100	0.2	45,813
Sengerema	304	0.5	46,480	71.9	17,877	27.6	0	0.0	64,661
Geita	2,123	2.3	76,687	82.2	13,843	14.8	634	0.7	93,287
Missungwi	574	1.7	17,365	50.9	15,787	46.3	406	1.2	34,132
Ilemela	468	3.6	10,323	79.9	2,132	16.5	0	0.0	12,923
Total	5,246	1.5	245,676	72.2	87,622	25.8	1,540	0.5	340,084

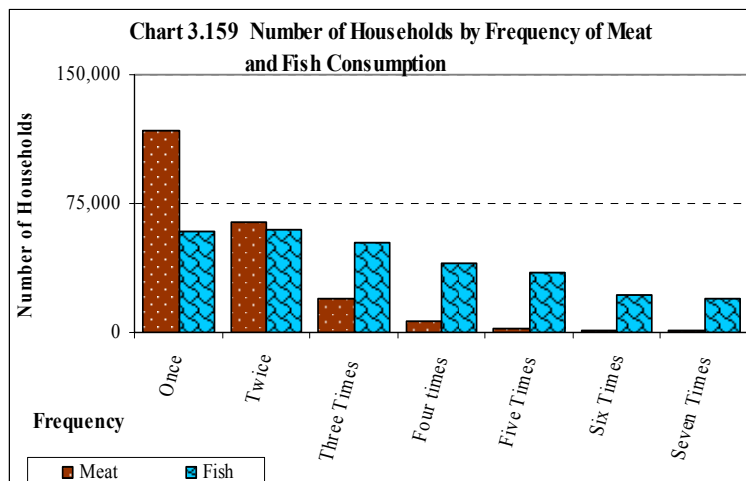
Ilemela district had the largest percentage of households eating one meal per day whilst Kwimba had the highest percentage of households eating 3 meals per day (Table 3.17 and Map 3.62)



Meat Consumption Frequencies

The number of agricultural households that consumed meat during the week preceding the census was 212,222 (62% of the agricultural households in Mwanza region) with 116,948 households (55.1% of those who consumed meat) consuming meat only once during the respective week. This was followed by those who had meat twice during the week (18.7%).

Very few households had meat three or more times during the respective week. About 38 percent of agricultural households in Mwanza region did not eat meat during the week preceding the census. (Map 3.66).



Fish Consumption Frequencies

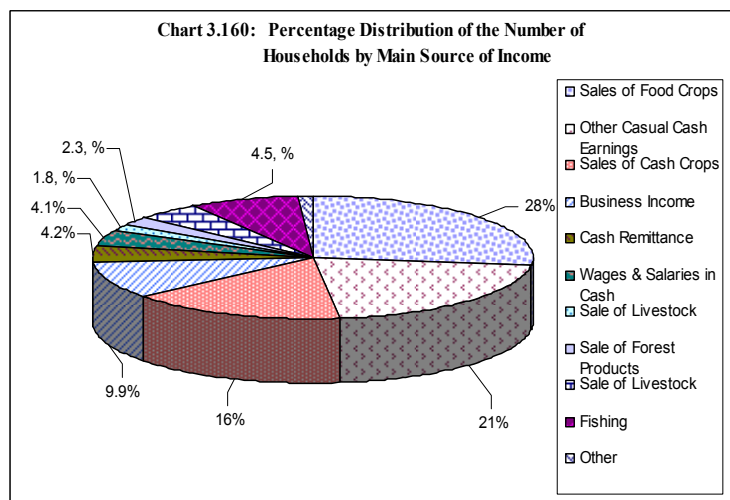
The number of agricultural households that consumed fish during the week preceding the census was 303,513 (89.2% of the total agricultural households in Mwanza region) with 59,801 households (19.7% of those who consumed fish) consuming fish twice during the respective week. In general, the percentage of households that consumed fish twice or more during the week in Mwanza region was 244,378. (80.5% of the agricultural households, that ate fish in the region during the respective period). About 10.8 percent of the agricultural households in Mwanza region did not eat fish during the week preceding the census (chart 3.159 and Map 3. 65).

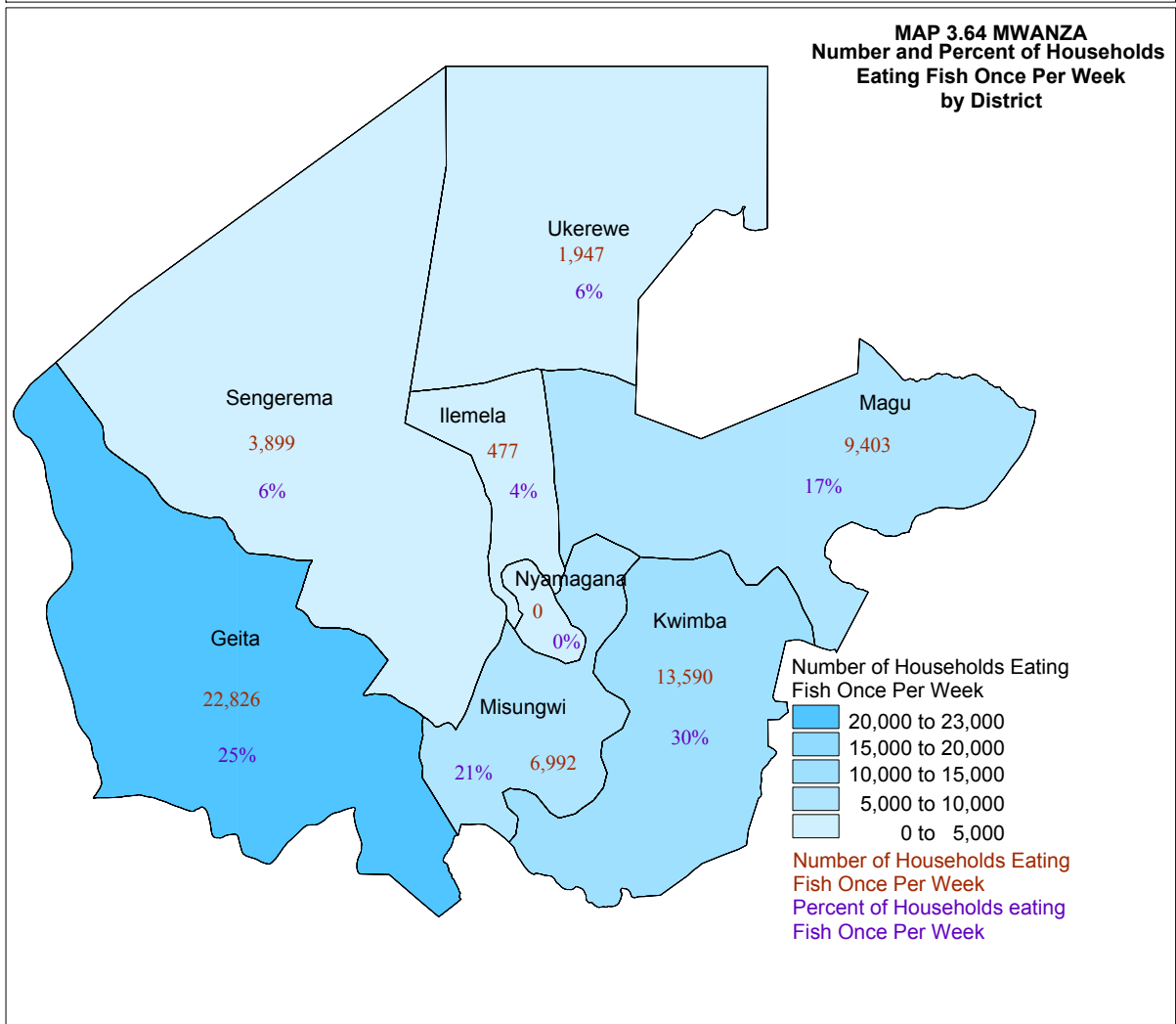
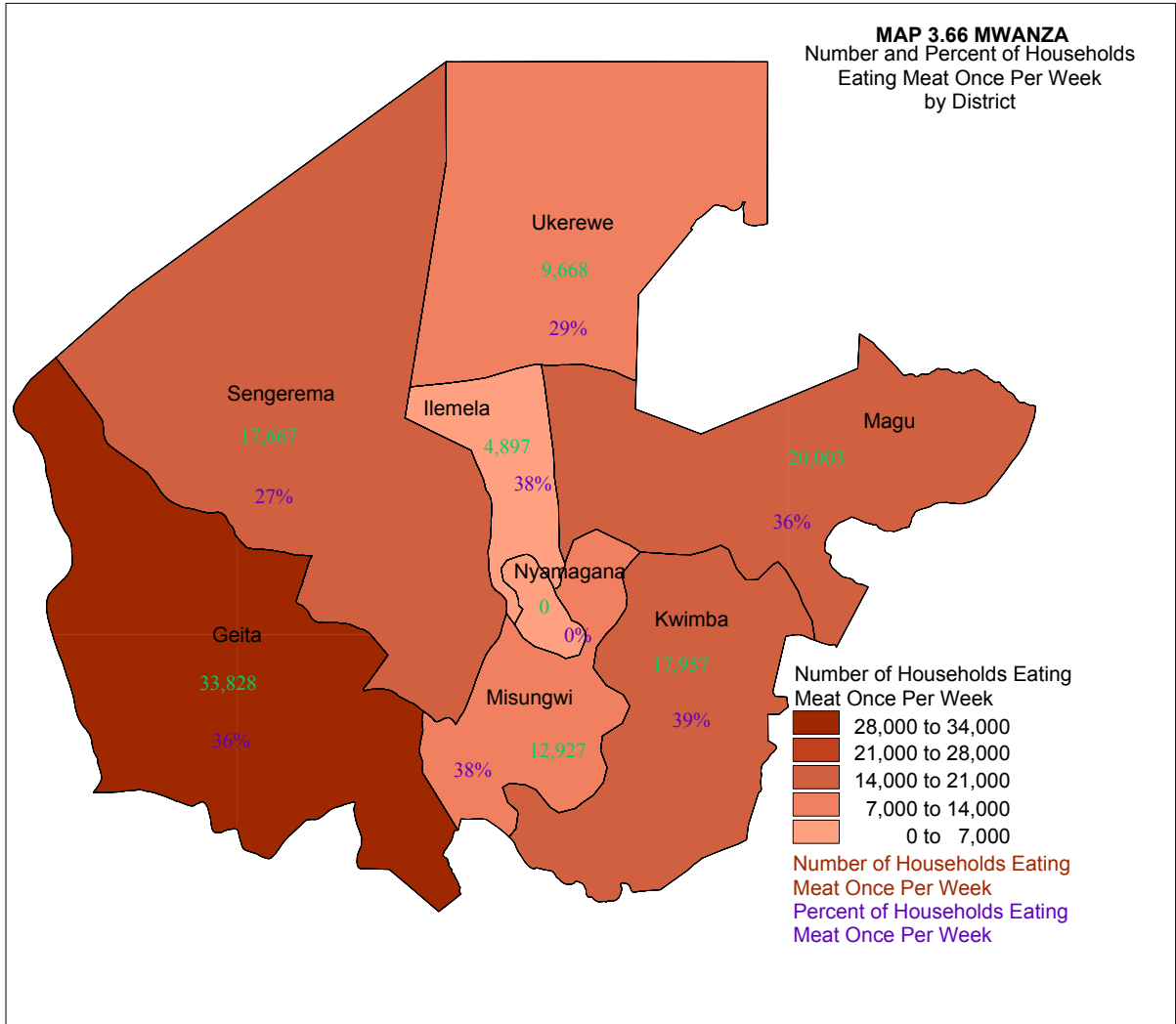
3.15.8 Food Security

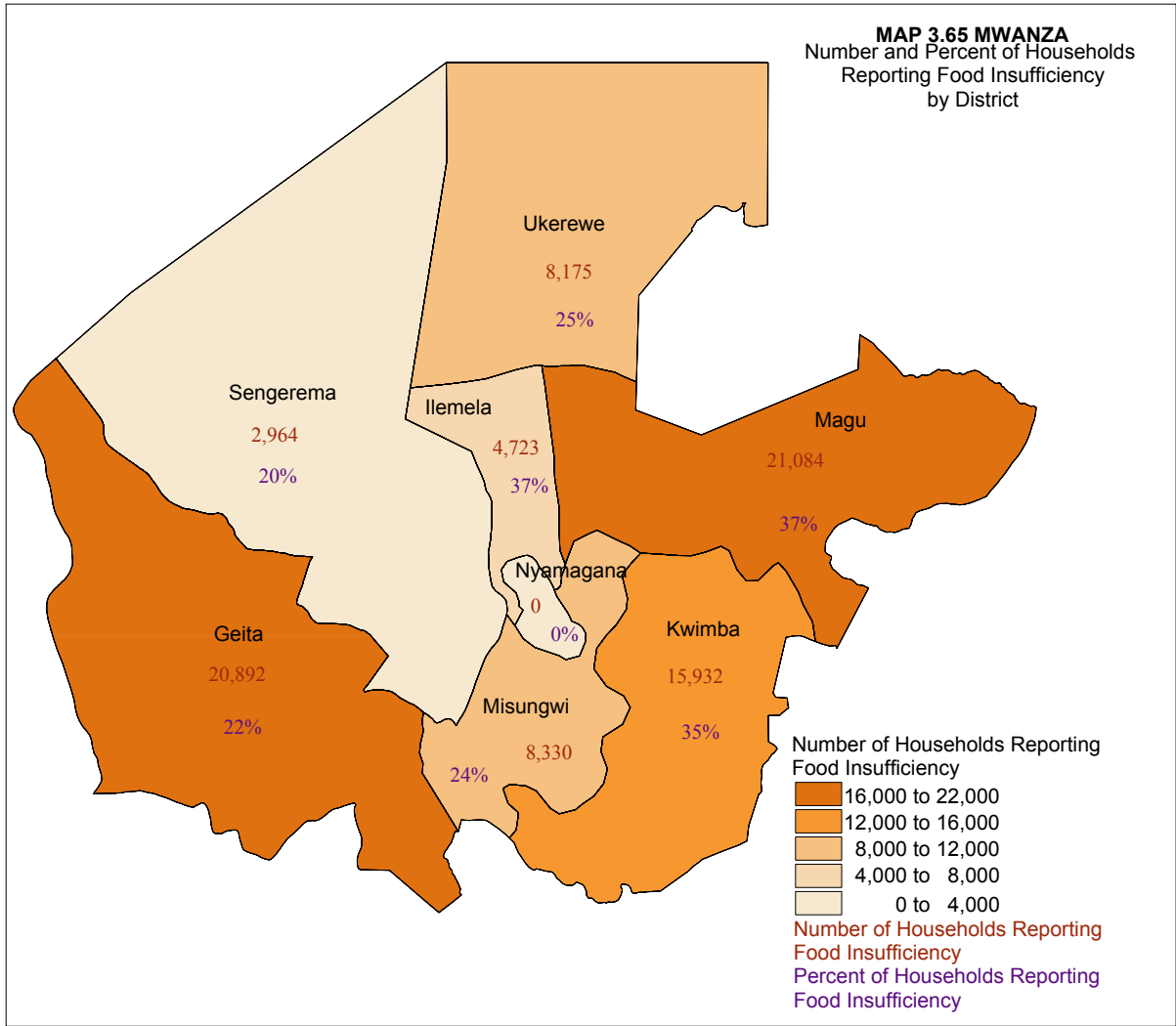
In Mwanza region, 92,100 households (27.1% of the total agricultural households in the region) said they rarely experienced problems in satisfying the household food requirement. However 12,614 (3.7%) said they sometimes experience problems, 10.0 % had often experienced problems and 6.1 percent always had problems with satisfying the household food requirements. About 53 percent of the agricultural households said they did not experience any food sufficiency problems. (Map 3.67)

3.15.9 Main Sources of Cash Income

The main cash income of the households in Mwanza region was the selling of food crops (27.2 percent of smallholder households), followed by casual labour (20.9%), selling of cash crops (15.8%), business (9.9%) fishing (8.2%) and cash remittances (4.2%), wages salaries (4.1%), sales of forest product (2.3%), sales of livestock and their products (1.8%) (Chart3.160).







4 MWANZA PROFILES

This section presents the status of crops and livestock production, access to natural resources and services, demography and poverty for both the region as a whole and for each district.

4.1 Mwanza Region Profile

The regional profile describes the status of the Agriculture sector in the region and compares it with other region in the country.

Mwanza region has the third largest utilised land area (approximately 700,000 ha) most of which is planted with annual crops, however permanent crops are also grown mainly as mixed crops with annuals but also small amounts of permanent mono-crop stands exist. The percent of land available to smallholders that was utilised during the census year was average compared to other regions, however the response to insufficiency of land was high (57%). Mwanza has two planting seasons and the short rainy season had a greater planted area than the long rainy season during the census year, however the area planted per household was greater in the long rainy season than in the short rainy season.

The region has the largest planted area of maize and paddy per square kilometre and the largest planted areas under cassava in the country. It also has the second largest planted areas of cotton in the country. Compared to other regions, the area under sorghum and bean production is moderate to low. Vegetable production in Mwanza is moderate. Of the permanent crops mangos and oranges are the most important.

The region has the fourth largest planted area under irrigation; however the number of households practicing irrigation has remained unchanged over the last 10 years. As with most regions, most land clearing is done by hand slashing. The region has the third largest planted area cultivated by oxen, however around 60 percent is cultivated by hand. Eighty percent of the planted area had no fertiliser, the remaining area was applied with farm yard manure and virtually no chemical fertiliser was used.

Mwanza has the highest percent of unprotected storage in Tanzania with approximately 80 percent of households using sacks or open drums for storage. Most processing was done by neighbours' machines and of the small amount of processed products sold, most was to the local market/trade store. The region had one of the lowest percent of households receiving extension services in the country.

It has low to moderate number of trees planted by smallholders and a moderate number of households with erosion control/water harvesting structures; however in has the largest number of erosion control and water harvesting bunds in the country.

Mwanza has a high population of livestock. It has the second highest population of cattle in the country and has the highest density. Improved cattle types are virtually absent in Mwanza. The region has one of the highest densities of goats in the country; however it has low numbers of sheep and one of the lowest populations of pigs. It is the third highest milk producer in the country and the farm gate price for milk is very low.

The region has the second highest population of chickens in the country and it has the highest density. The number of improved chickens is very low however egg production is relatively high.

The region has one of the highest utilization of organic fertilizer in terms of area although the application rate per household was average. It has a moderate to high use of draft animals for cultivation.

The rate of disease infection is moderate to low and considering the high cattle population it has a low incidence of trypanosomiasis. Access to livestock infrastructure and services is moderate to poor. Mwanza has the highest number of smallholders receiving extension services from Large Scale Farmers. However, this is still a very small number compared to extension provision from the government. There are a small number of fish farmers in the region.

Mwanza has a high population of livestock. It has the second highest population of cattle in the country and has the highest density. Improved cattle types are virtually absent in Mwanza. The region has one of the highest densities of goats in the country; however it has low numbers of sheep and one of the lowest populations of pigs. It is the third highest milk producer in the country and the farm gate price for milk is very low.

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4.2 District Profiles

The following district profiles highlight the characteristics of each district and compare them in relation to population, main crops, livestock, production, productivity, access to services, resources and levels of poverty.

4.2.1 Ukerewe

Ukerewe district has the second lowest number of households in the region and it has a low percentage of households involved in smallholder agriculture. Most smallholders are involved in crop farming only, followed by crop and livestock farming. There are no livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Ukerewe district is permanent crop farm, followed by annual crop farming. The district has the highest percent of households with no off farm income activities (95%) also it has the highest percent of households with more than two members with off farm income, compared to other districts in the region.

Ukerewe has a relatively low percent of female headed households (13%) and it has one of the highest average age of the household head in the region. With a household size of six members per households it is average for region.

Ukerewe has the highest literacy rate among smallholder households and this is reflected by the district having the highest level of school attendance in the region.

The district has the second lowest planted area in the region and third largest planted area per households (0.5ha in the long rainy season and 0.77 ha in the short rainy season), the district is moderately important for maize production in the region with a planted area of over 1,617 ha, and the planted area per maize growing household is also lowest for the region. The

district has the lowest planted area of paddy in the region with 1,268 hectares. Little sorghum is grown in the district. Cassava production is higher, accounting for 19 percent of the quantity harvested in the region. The district has a very small planted area of Irish potatoes (15 ha). The production of beans in Ukerewe district is low with a planted area of 428 ha. Ukerewe district has the second lowest groundnut planted area in Mwanza region with a planted area per groundnut growing household of 0.3 ha. Vegetables production is moderately important in the district. Although small, it has the second largest planted area with tomatoes, cabbage and chillies (74 ha, 13 ha and 37 ha respectively) Traditional cash crops (e.g. tobacco and cotton) are grown in very small quantities.

Compared to other districts, Ukerewe has the second largest planted area with permanent crops which is dominated by oranges (9,641 ha) and Bananas (2,480 ha). A small amount of mango is grown (252 ha). As with other districts in the region, most land clearing is done by hand slashing; however there is a substantial area with no land clearing indicating bare ground before planting. Practically all land preparation is done by hand, however a very small amount of land preparation is done by tractor.

The use of inputs in the region is very small, however district differences exist. Ukerewe has lowest second planted area with improved seed in the region as well as the lowest proportion of households using improved seeds. Though small, the district has the second lowest planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer), and most of this is with farm yard manure. Compared to other districts, Ukerewe districts has the lowest level of insecticide use, the use of fungicides and herbicides is low and it has the largest percent area with irrigation compared to other districts with 17,023 ha of irrigated land. The most common source of water for irrigation is from Lake using hand bucket methods, flood is the most common means of irrigation water application followed by Gravity and no pump water is used. The most common method of crop storage in Ukerewe district is in sacks/open drum, however the proportion of households not storing crops is average for the region. Ukerewe has a lower number of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. Ukerewe is among the districts with the lowest percentage of the households processing crops in Mwanza region and is almost all done by neighbour's machine. The district also has the second lowest percent of households selling crops to local market and trade store compared to other districts and no sales to large scale farms, no access to credit in the district were reported.

Comparatively larger number of households receives extension services in Ukerewe district and all of this is from the government, the quality of extension services was rated between good and average by the majority of the households. Tree farming is important in Ukerewe (with 2,109 planted trees) and is mostly *maesopsis Berchemoides* and *Gravellia*. The third lowest proportion of households with erosion control and water harvesting structures is found in Ukerewe district is mostly erosion control bunds and water harvesting bunds, however it also has the number of vertiver grass and drainage ditches.

The district has the second lowest number of cattle in the region and they are almost all indigenous. Goat production is less compared to other districts; also it has the lowest population of sheep in the region. It has reported to have no number of pigs in the districts and a moderate number of chickens. Some ducks and turkeys are also found in the district, a number of households reported tsetse and tick problems and it has the second lowest number of households deworming livestock, no household reported the use draft animals, also no number of households reported to practice fish farming.

It has amongst the best access to primary schools, health clinics and primary and secondary markets compared to other districts. However, it has one of the worst accesses to regional capital, secondary schools and tarmac roads. The percentage

of households without a toilet facility in Ukerewe district is comparatively high (7.8%). Also it is amongst the districts with the lowest percent of households owning wheel barrows, vehicles and bicycles. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The roofing material for most of the households in the districts is iron sheets (58%), also it has a comparatively low percent of households with grass/leaves (36%) compared to other districts. The most common source of drinking water is from protected wells, it is one of the districts with the highest percent of households having two meals per day. The district had third low highest percent of households that did not eat meat and the lowest percent of households that did not eat fish during the week prior to enumeration and most households never had problems with food satisfaction.

4.2.2 Magu

Magu district has the third largest number of households in the region and it has one of the highest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. It has a very small number of livestock only households and no pastoralists were found in the district.

The most important activity for smallholder households in Magu district is Annual crop farming, followed by Trees/forest resources. However, the district has the highest percent of households with no farm incomes activities (89%), and the highest percent of households with more than two member with off-farm income. Compared to other districts in the region. Magu has relatively low percent of female headed households (18%) and it has one of the higher average size in the region, with an average households size of 5 members per households it is slightly below average for the region. Magu has a comparatively high literacy among smallholder households (67%).

The land area utilized per household (1.9 ha) which is slightly lower to regional average of (2.0 ha). The district has the third largest planted area in the region and the fourth largest planted area per (0.8 ha) in the long rainy season and (0.6 ha) in the short rainy season. The district is moderately important for maize production in the region with a planted area of over 208,512 ha and the planted area per households is 0.8 ha which more than average for region of is 0.7 ha. Paddy production is another important crop with a planted area of 8,826 hectares; however it is the third lowest in the region. Sorghum is the third highest planted area in the region, while Irish potatoes and wheat are not produced in the district; the district has low planted area of cassava accounting 11 percent of the cassava planted area of 3,328 oilseed and vegetables crops are not important in Magu with only 3 percent of the groundnuts grown in the district but there is large quantities of cotton grown in the Magu district.

Permanent crops are not important in Magu district (11% of the total permanent crop planted area in Mwanza region), the permanent crops in the district include mango (9 ha), sugarcane (12 ha), other permanent crops are either not grown or are grown in very small quantities. As with other districts in the region, most land clearing is done by hand slashing, and a relatively small area of bare ground before planting. Practically all land preparation is done by hand, however a very small amount of land preparation is done by tractor.

The use of inputs in the region is very small, however district differences exist, Magu has the small planted area with improved seed in Mwanza region. The district also has a small planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer) and practically all is with farm yard manure. Compared to other districts in the region, Magu district has the largest area of insecticide and fungicide use and the use of herbicides is relatively small, it has the fifth

largest area of irrigation in the region with 246 ha of irrigated land, the most source of water for irrigation is from wells, Lake and rivers, almost all water application is done by using Bucket/watering can.

The most common method of crop storage in Magu is locally made traditional cribs, the district has the highest percent of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. Magu district has a high percent of households processing crops in the region and is almost all done by neighbour machine. No processed crops are sold and very few households have access to credit.

A moderate number of households receive extension services in Magu district and almost all of this is from the government and NGO/Development Project, the quality of extension services was rated between good and average by the majority of the households.

Tree farming is not important in Magu district (with 4,342 planted trees) and is mostly Eucalyptus spp and Azadirachta spp, Gravellia and Sienna Spp. The highest proportion of households with water harvesting bunds is found in Magu district and it also has the highest number of erosion control bunds. The district has a largest number of cattle in the region and they are almost all indigenous. Goat and sheep production is high compared to other districts; it has very small number of pigs in the district and the larger number of chickens, all of which are indigenous. Virtually no improved chickens are found in the district. The district has the largest number of ducks, and a small number of rabbits and turkeys are found in the district. A small number of households reported tsetse and tick problems in Magu district. A small amount of deworming of livestock is practiced in the district; also it has the second largest number of households using draft animals. There is no fish farming in the district.

The percentage of households without toilet facility in Magu district is average for the region; however it has the fourth highest percent of households with no toilet facilities. It has the second highest percent of households owning radio, mobile phone, vehicles and Tv/Video. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has a high percent of households with grass roofs 41 percent and 42 percent of households have iron sheet roofing. The most common source of drinking water is from protected wells. Seventy three percent of the households in the district reported having two meals per day. The district had a highest percent of households that did not eat meat and the fourth lowest percent of households that did not eat fish during the week prior to enumeration and most households seldom had problems with food satisfaction.

4.2.3 Kwimba

Kwimba district has fourth highest number of households for the region and it has the largest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming, it has very small number of livestock only households and pastoralists were found in the district.

The most important livelihood activity for smallholder households in Kwimba district is Annual crop farming, followed by off farm income. It has the larger percent of households with no off incomes activities and the highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Kwimba district has a relatively high percent of female headed households (21%) and it has one of the highest average ages of the households head. With average household size of 6 members per households and it is average for the region. Kwimba district has a comparatively moderate literacy rate among smallholders. It has higher utilized area per household (2.0 ha) which is equivalent to regional average of 2.0 ha. The district is important for maize production in the region with a planted area of 39,709 ha and the planted area per households is among the highest in the region. Paddy production is also

important with a planted area of 20,641 hectares and the production of sorghum is high. Cassava and beans production in Kwimba district was small, Irish potato and wheat was not grown. Oilseeds crops and vegetables are moderately important in the district, however, whilst the district has one of the largest planted areas with groundnuts; sunflower is not grown in the district. Traditional crops (e.g. tobacco and cotton) are grown in the district, cotton production is moderately high, whilst tobacco is not important. Compared to other districts in the region, Kwimba district has the smallest planted area with permanent crops (0.8 percent of total permanent area planted in the region) mostly is dominated by Sour soup (533 ha), Mango (53 ha). Other permanent crops are either not grown or are grown in very small quantities. As with other districts in the region, land clearing by hand slashing is predominant and practically all land preparation is done by hand.

The use of inputs in the region is very small, however districts differences exist. Kwimba district has the highest planted area with improved seed; the district also has the highest percent of planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer), and most of this is with farm yard manure. Compared to other districts, Kwimba district has the lower area planted with insecticides but has the fourth highest percent of the total planted area in the region. The percent of planted area with fungicides is amongst the highest in the region and is the highest for herbicides. It has one of the smallest areas of irrigation 8,752 ha. The most common source of water for irrigation is from rivers using land buckets/bucket. Watering cans are the most popular means of irrigation water application. The most common method of crop storage is in locally made traditional cribs. The proportion of households not storing crops in Kwimba district is relatively small. The number of households selling crops in the district is among the smallest in the region, however for those who did not sell, the main reason for not selling is insufficient production. The smallest percent of households processing crops in the region is found in Kwimba district and processing is mostly done by neighbor's machine. The district has the larger number of households processing crops on farm by machine. It also has the fourth largest number of households processing crops on farm by hand. Most households that sell crops sell to local market/trade store. Access to credit in the district is very small. A very small number of households receive extension services in Kwimba district and almost of all this is from the government. The quality of extension services was rated between very good and average by the majority of the households.

Tree farming is not important in Kwimba district (with only 1,962 planted tree) and most of them are Eucalyptus spp, and Gravelias. Kwimba district has the largest proportion of households in the region using water harvesting bunds.

Kwimba district has the fourth highest number of cattle in the region and most of them are indigenous. It has also the fourth highest number of goats in the region, Kwimba has the highest number of sheep in the region, however it no pigs. It has the third highest number of chickens in the region and a relatively high number donkey is found in the district. A small number households reported tsetse and tick problems in kwimba district and it had one of the smallest numbers of households worming livestock. The use of draft animals in the district is highest in the region and very few households practice fish farming. It is amongst the districts with the best access to primary schools, feeder roads, all weather roads, and health clinics, tertiary market, compared to other districts. However, it has the worst access to secondary schools, Regional capital, and tarmac road. Kwimba district has a larger number of households with no toilet (13%). The district has the higher percent of households owning bicycle, radio and iron. The common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the second largest percent of households with grass roofs with only 25 percent of households having iron sheet. The most common source of drinking water is protected wells and it has fifty percent of households having two meals per day and the highest percent with 3 meals per day. The district had the highest percent of households that did not eat meat or fish during the week prior to enumeration. Most households seldom had problems with food satisfaction.

4.2.4 Sengerema

Sengerema district has the second highest number of households in the region and it is one of the highest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. It has a very small number of livestock only households and no pastoralists were found in the district

The most important livelihood activity for smallholder in Sengerema district is Annual crop farming, followed by permanent crop farming, off-farm income, tree/forest resources and livestock keeping/herding. The district has the fourth highest percent of households with no off incomes activities and the second largest percent of households with more than one member with off-farm income. Compared to other districts in the region, Sengerema has a moderate percent of female headed households (15%) and it has a slightly low average age of the household head. With an average household size of 7 members per household it is bit higher than the regional average. Sengerema has the higher literacy rate among smallholders' households in the region (70%). It has one of the highest utilized land area per household (2.3 ha) which is slightly higher the regional average of 2.0 ha per household. The district has higher planted area in the region, however it has the third lowest planted area per household (0.5 ha) both to short and long rainy season.

The district is important for maize production with a planted area of 32,278 ha, however the planted area per household is moderate compared to other districts in the region. Paddy production is also important with a planted area of 15,371 hectares and the production of sorghum is moderately high. Wheat is not grown in the district. The district has the highest percent of cassava planted area in the region and it has virtually no irish potatoes. The production of beans in Sengerema district is relatively high in the region and oil seed crops are important, the district has a large planted area of groundnuts, however it did not have sunflower production. Traditional crops (e.g. tobacco and cotton), cotton production is relatively high, with very small amount of tobacco (3,197 ha). And compared to other districts in the region, Sengerema has more planted area with permanent crops (3,197 ha) dominated by oranges (1,557 ha) and Banana (644 ha), other permanent crops are either not grown or grown in very small quantities.

As with other districts in the region, most land clearing is done by hand slashing, however ‘no land clearing’ is relatively high indicating bare land before cultivation. Practically all land preparation is done by hand, however very small amount of land preparation is done by Bush clearance. The use of inputs in the region is very small, however district differences exist. Sengerema has a moderate planted area with improved seed compared to other districts. The district has the largest planted area with fertilizers and most of this is with farm yard manure. Compared to other districts in the region, Sengerema district has the third highest percent of its planted area with insecticides in the region. The use of fungicides was one of the lowest in the region and virtually none was used. It has the smallest planted area with irrigation in the region with only 683 ha of irrigated land, rivers, wells and dam is used as the source of irrigation water and hand bucket was mainly used. Buckets/Water cans are the most common means of irrigation water application.

The most common method of crop storage is in locally made cribs; however the proportion of households not storing crops in the districts is one of the highest in the region. The district has the high number of households selling crops and the main reason for not selling is insufficient production. Sengerema district has the highest percent of households processing crops on the farm by hand and a small percent of households processed crops mainly using neighbours machine and on farm by machine. Access to credit is very small in the district and the main reason for not using credit is did not know how to get credit

A comparatively small number of households receive extension services in Sengerema district and all of this is from the government. The quality of extension services was rated between good and average by most of the households.

Tree farming is important in Sengerema (with 10,304 planted trees) and is normally with *Eucalyptus* spp, *Cyprus* spp, and *Maesopsis Berchemoides*.

It has the smallest number of erosion control and erosion control bunds, Gabion/sand bag, tree belts. The district has higher number of cattle in the region and they are mostly all indigenous. Goat and Sheep production is higher in the region and no pigs found in the district. It has a comparatively highest number of chickens, small numbers of ducks and turkeys are also found in the district. A moderate number of households reported Tsetse and tick problems in Sengerema district and has the highest number of households de-worming livestock. The use of draft animals in the district is small and no fish farming is practiced in the district. It is amongst the districts with the best access to secondary schools, feeder roads, and health clinics and primary markets: however it has one of the worst accesses to the regional capital, secondary markets and tarmac roads.

Sengerema has high percent of households with no toilet facilities (9%). The district has the largest percent of households owning radios and bicycles and mobile phones. Very small number of households reported owning vehicles and television/videos. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the larger percent of households with grass roofs (49%) and only 44 percent of households having iron sheets. The most common source of drinking water is from unprotected well and protected well. It has seventy two percent of households having two meals per day compared to other districts and it has twenty seven percent of households with 3 meals per day. The district had the second highest percent of households that did not eat meat during the prior to enumeration; however it has third lowest percent of households that did not eat fish during the preceding week. Most households in the districts never had problems with food satisfaction.

4.2.5 Geita.

Geita district has the largest number of households in the region and it has one of the highest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. A very small number of households keep cattle only and there are no pastoralists in the district.

The most important livelihood activity for smallholder households in Geita district is Annual Crop Farming, followed by tree/forest resources and off farm income. However, the district has the higher percent of households with no off farm income activities (90%) and among the lowest percentage of households with more than one member with off-farm income compared to other districts in the region. Geita has a relatively low percent of female headed households (11%) and it has the highest average household size of 7 members per household. Geita has a comparatively moderate literacy rate among smallholder household, about 62% of the smallholder households in the district. The literacy rate for the heads of household is also slightly moderate (57%) compared to other districts in the region. It has the smallest utilized land area per household (1.9 ha) and it has the highest unutilized area in the region suggesting less land pressure than in other districts. The total planted area is greater than in other districts in the region due to the presence of good long and short seasons, however it has the second highest planted area per household (0.7 ha) attributed to the high number of smallholders in the districts.

The district is moderately important for maize production in the region with a planted area of over 64,083 ha; however the planted area per household is among the lowest in the region. Paddy production is another important crop with a planted

area of 24,726 ha and the production of sorghum is moderately high. Cassava production is moderate accounting for 16 percent of the quantity harvested in the region. The district has a large planted area of Irish potatoes (67 ha) and it is the only district in the region that grows this crop. The production of beans in Geita is much higher than in other districts in the region with planted area of 17,055 ha. Also oilseeds crops are important in Geita and 41 percent of the area planted with groundnuts (7,825 ha) were grown in the Geita districts. Vegetable production is less important in the district, it has a moderate planted area with tomatoes, cabbage and chillies (217 ha, 72ha and 22 ha respectively) compared to other districts in the region and accounts for 13 percent of the tomato production, 22 percent of the cabbage production and 21 percent of the chilly production in the region. Traditional cash crops (e.g. tobacco and cotton) are grown in very high quantities.

Geita districts had the largest area under small holders permanent crops (10,383 ha) and second largest area per permanent crop growing household (0.48 ha).

As with other districts in the region, most land clearing and preparation is done by hand, however and very slightly more land is done by oxen compared to some other districts.

The use of inputs in the region is very small, however districts differences exist. Geita has the largest planted area with fertilizer use in Mwanza region, however most of this is farm yard manure, compared to other districts in the region, Geita district has a low level of insecticide use and the use of herbicides was moderate to high compared to other districts. Also it has the largest area with irrigation compared to other districts with 2,648 ha of irrigated land. The most common source of water for irrigation is from rivers using gravity, flood and bucket are the most common means of irrigation water application and very small amount of sprinkler irrigation is used.

The most method of crop storage is in locally made traditional cribs, however the proportion of households not storing crops in the districts is among the lower than other districts in the region. The districts has the largest number of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. The highest percent of households processing crops in Mwanza region is found in Geita districts and is almost all done by neighboring machine. The districts also have a higher percent of households selling processed crops to local markets/trade stores than other districts and no sales at secondary market. Although very small, access to credit in the districts is to men only and the main sources are religious organization/NGO projects and family friends and relatives...

Comparatively larger number of households receive extension services in Geita and all of this is from the government, the quality of extension services was rated between very good and average by the majority of the households.

Tree farming is less important in Geita (with 1,543 planted trees) and is mostly Gravel's with some senna spp, acacia spp. The lowest proportion of households with erosion control is found in Geita and no water harvesting structures, the little practiced is erosion control bunds and it also has the moderate number of vertiver grass.

The district has the second largest number of cattle in the region and they are almost all indigenous. Goat production is highest compared to other districts and it has moderate population of sheep in the region. There are no pigs in the district duty it has the highest number of chickens in the region. There are on improved layers. Small number of ducks and donkeys are also found in the districts, the highest number of households reporting tsetse and tick problems was in Geita

districts and it had the largest number of households de-worming livestock. The use of draft animals in the districts is moderate and no fish farming was practiced.

It has amongst the worst access to secondary schools, primary schools, and health clinics and primary and secondary markets compared to other districts in the region. However, it has one of the worst accesses to district capital, regional capital and tarmac road.

Geita district has the highest percent of households with no toilet facilities and it has the highest percent of households owning bicycles, wheelbarrow, and radio and landline phone. It has lower number of households using main electricity, the most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has a moderate percent of households with grass roofs with 39 percent of households having iron sheets. The most common source of drinking water is from unprotected springs. It has eighty two percent of households having two meals per day compared to other districts and fourteen percent with 3 meals per day, the districts had the third highest percent of households that did not eat meat and the second highest percent of households that did not eat fish during the week prior to enumeration, however most households never had problems with food satisfaction.

4.2.6 Missungwi

Missungwi district has a moderate number of households in the region and most smallholders are involved in crop farming only, followed by crop and livestock production. It has a very small number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Missungwi district is Annual crop farming followed permanent crop farming and tree/forest resources. The district has a high percent of households with no off-farm income activities however it has the fourth highest percent of households with one member with off farm income compared to other districts in the region. Missungwi has the second highest percent of female headed households (22%) and it has one of the moderate average ages of the households head. With an average household's size of 6 members per households, this is equivalent to average size for the region. The literacy rate among smallholder households in Missungwi is second lowest percent in the region and associated with this is a high number of households members who have never attended school.

It has the largest utilized land area per household (2.2 ha). The total planted area is the fifth largest in the region and has the largest planted area in the short rainy season. However the planted area per household in the long rainy season (0.7 ha) is the second highest in the region.

The district is important for maize production in the region with a planted area of 26,675 ha and the planted area per household is the second largest in the region. Paddy production is high for the region with a planted area of 81,805 hectares and the district has large planted area per paddy growing household. Production of sorghum is high. The district also has the largest planted area of cow peas (1,320 ha) and green gram (599 ha), however very little beans and field peas are produced. Cassava production is relatively low accounting for 7.2 percent of the total cassava planted area in the region. Oilseed is not important in Missungwi with a moderate planted area of groundnuts (2,325 ha) and virtually no sunflower production. Also vegetable production is not important in the district however tomatoes and onion are produced in high quantities. Missungwi is amongst the district that cultivates cotton and the planted area is moderate.

Compared to other districts in the region, Missungwi has a small planted area with permanent crops which is dominated by mango (3,704 ha), banana (688 ha) and orange (116 ha). Other permanent crops are either not grown or are grown in small quantities. Most land clearing is done by hand slashing; it has also the moderate area of bush clearance in the region. Most land preparation is done by hand, however it has the highest planted area cultivated by oxen and a very small amount of land preparation is done by tractor.

The use of inputs in the region is very small, however district differences exist. Missungwi has a high planted area with improved seed in Mwanza region. The use of fertilizer is moderate and is mostly farm yard manure with small inorganic fertilizer use. Compared to other districts, Missungwi has a high percentage of the planted area in the district with fungicide application and a moderate amount of herbicide was used. It has the fourth largest area with irrigation with a planted area of 631 ha under irrigation. The most common source of water for irrigation is from wells using hand buckets. Buckets/watering cans are the only means of irrigation water application in the district.

A comparatively small number of households receive extension services in Missungwi and mostly from the government. The quality of extension services was rated between good and average by the majority of the households. Tree farming is not important in Missungwi (with only 141 planted trees) and is mostly *Azadirachta* spp and *Leucena* spp. A small proportion of households with erosion control and water harvesting structures is found in the district and is mostly erosion control bunds.

The district has the large number of cattle in the region and they are almost all indigenous. Goat and Sheep population is also large in the region, the district has a comparatively high number of pigs in the region and it has a moderate number of chickens, all of which are indigenous. A moderate number of ducks, donkeys and rabbits are also found in the district. It has highest proportion of households reporting Tsetse and tick problems in the region and it had high number of households de-worming livestock compared to other districts. Number of household using draft animals is high but fish farming is not practiced. It is amongst the districts with the best access to primary schools, feeder roads, health clinics and primary markets, tarmac roads; however it has one of the worst accesses to regional capital, secondary and tertiary markets. Missungwi district has a low percent of households with no toilet facilities (5.5%) compared to other districts, it has moderate percent of households with bicycle, wheelbarrow and iron, and it among the district with a low percent of households owning mobile phones and land line phones. The most common sources of drinking water are from unprotected and protected wells. It has fifty one percent of households having two meals per day compared to other districts and forty six percent with three meals per day. The district has lowest percent of households that did not eat meat however it has second highest of households that did not eat fish during the week prior to enumeration; however most households never had problems with food satisfaction.

4.2.7 Ilemela.

Ilemela district has the smallest number of households in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production. It has a very small number of livestock only households. The most important livelihood activity for smallholder households in Ilemela district is annual crop farming, followed by Permanent crop farming, off-farm income and tree/forest resources. However the district has high percent of households with no off farm income activities and a lowest percent of households with more than one member with off farm income compared to other districts in the region. Ilemela has the highest percent of female headed households (22%) in the region and it has the third average age of the household head. With an average household size of 5 members per household, it is the lowest average

size for the region. Ilemela has a moderate literacy rate among smallholder households in Mwanza region and this is reflected by the relatively high level of never attended school in the region.

It has largest utilized land area per household (2.3 ha) in the region. The total area is smaller compared than other districts. However it has the second lowest area per household 0.7 ha during the long rainy season and 0.5 ha in the short rainy season.

The district is not important for maize production in the region with a planted area of over 3,737 ha and the planted area per maize growing household is the second lowest in the region. The district has the smallest planted area of paddy (1,534 ha) while sorghum, finger millet are produced in very small quantities. Cassava production is small accounting for only 5 percent of cassava planted area in the region. Other pulses produced in the district are of minor importance. Oilseed crops are not important in Ilemela. Vegetable production is not important in the district; however tomatoes, cabbage, onions and other vegetables are grown in small quantities. Cotton is the only traditional cash crop grown in the district in small quantities. Compared to other districts, Ilemela has a moderate planted area with permanent crops which is dominated by Mango (4,537 ha) and Sugarcane (1,431 ha). Small quantities of banana, guava orange and lime/lemon grown and other permanent crops are either not grown or are grown in the very small quantities. Most land clearing is done by hand slashing; it has a high planted area with ‘‘ no land clearing ‘‘ indicating the presence of a large area of bare land before cultivation. Most land preparation is done by hand, however it has a very small planted area cultivated by oxen. A large amount of land preparation is done by tractor. The use of inputs in the region is very small, however district differences exist. Ilemela has a one of the smallest percentage of its planted area with improved seed and fertilizers (compost and farm yard manure, however most of this is farm yard manure). The district has a relatively small level of insecticide and fungicides use, however the use of herbicides, though small, was the second lowest in the region. It has the second biggest area of irrigation with 686 ha of irrigated land. The most common source of water for irrigation is from wells using hand buckets, Buckets/watering cans are the most common means of irrigation water application and a very small amount of flood irrigation is used.

The most common method of crop storage is in sacks/open drums, locally made traditional crib. The proportion of households not storing crops in the districts is the lowest in the region. The district has a small number of households selling crops, however for those who did not sell, the main reason for not selling is insufficient production. It is the third highest percent of households processing crops in Mwanza region and is mostly done using neighbours machines. The district has a small percent of households selling processed crops mostly to neighbours and local markets/trade stores. There is small access to credit in the district. A comparatively highest percent of households receive extension services in the Ilemela district and almost all of this is from the government. The quality of extension services was rated between good and average by the majority of the households. Tree farming is important in Ilemela (with 9,021 planted trees) and is mostly Eucalyptus spp and Gravellis. A relatively small proportion of households with erosion control and water harvesting structure are found in Ilemela district and is mostly tree belts and erosion control bunds; however it also has a number of water harvesting bunds, drainage ditches and vertiver grass

The district has a moderate to low number of cattle in the region and they are all indigenous. Goat production is also moderate to low compared to most other districts. Also it has a relatively small population of sheep compared to other districts in the region. It has no pigs and a moderate to low number of chickens with some improved chickens. Small numbers of ducks are found in the district. The large number of households reporting tsetse and tick problems in Ilemela

district and it has one of the moderate numbers of households de-worming livestock. The use of draft animals in the district is very small and no fish farming is practiced in the district. It is the only district with the best access to primary schools, feeder roads, health clinics, tarmac roads, all weather roads and primary markets. Ilemela district has the second lowest percent of households with no toilet facilities (6.6%) and it has one of the highest percent of households owning radio, mobile phones and televisions/video. The most common source of energy for lighting is the hurricane lamp and most of the households use charcoal for cooking. The district has a moderate percent of households with grass roofs and with 49 percent of households having iron sheet roofing. The most common source of drinking water is from protected wells and it has the second highest percent of households having two or one meal per day. Also it is the third lowest percent with 3 meals per day. The district had the fourth highest percent of the households that did not eat meat during the week prior to enumeration; however it has the lowest percent of households that did not eat fish during the respective period. Most households never had problems with food satisfaction.

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TYPE OF AGRICULTURE HOUSEHOLD

2.1 TYPE OF AGRICULTURE HOUSEHOLD: Number of Agricultural Households by type of household and District during 2002/03 Agriculture Year

District	Agriculture, Non Agriculture and Urban Households								
	Rural households involved in Agriculture	% of Total rural households	Rural households NOT involved in Agriculture	% of Total Rural households	Total Rural Households	% of Total households	Urban Households	% of Total households	Total Number of Households (from 2002 Pop. Census)
	Number	%	Number	%	Number	%	Number	%	Number
Ukerewe	32,909	9.7	1,701	0.5	34,610	9.4	6,119	7.8	40,729
Magu	56,360	16.6	6,167	1.8	62,527	17.0	7,538	9.7	70,065
Kwimba	45,813	13.5	1,338	0.4	47,151	12.8	2,740	3.5	49,891
Sengerema	64,661	19.0	5,490	1.6	70,151	19.0	6,481	8.3	76,632
Geita	93,286	27.4	8,893	2.6	102,179	27.7	13,461	17.3	115,640
Missungwi	34,132	10.0	2,152	0.6	36,284	9.9	3,672	4.7	39,956
Ilemela	12,922	3.8	2,462	0.7	15,384	4.2	37,965	48.7	53,349
Total	340,085	100.0	28,202	8.3	368,286	100.0	77,976	100.0	446,262

2.2 TYPE OF AGRICULTURE HOUSEHOLD: Number of Agriculture Households By Type of Holding and District during 2002/03 Agricultural Year

District	Type of Agriculture Household								Total Number of Agriculture Households	Total Number of Households Growing Crops	Total Number of Households Rearing Livestock
	Crops Only		Livestock Only		Crops & Livestock		Total				
	Number of households	%	Number of households	%	Number of households	%	Number of households	%			
Ukerewe	14,420	44	0.0	0.0	18,489	56	32,909	10	32,909	32,909	18,489
Magu	34,935	62	512	0.9	20,913	37	56,360	17	56,360	55,848	21,426
Kwimba	26,050	57	0	0	19,763	43	45,813	13	45,813	45,813	19,763
Sengerema	37,527	58	128	0.2	27,007	42	64,661	19	64,661	64,533	27,134
Geita	58,220	62	421	0.5	34,646	37	93,286	27	93,286	92,866	35,066
Missungwi	18,252	53	0	0	15,880	47	34,132	10	34,132	34,132	15,880
Ilemela	8,376	65	95	0.2	4,451	34	12,922	4	12,922	12,827	4,547
Total	197,780	58	1,156	0.3	141,149	42	340,085	100	340,085	338,929	142,305

NUMBER OF AGRICULTURE HOUSEHOLDS

3.0 HOUSEHOLDS DEMOGRAPHICS: Number of Agricultural Households and Average Household Size By Sex of the Head of Household and District, 2002/03 Agricultural Year

District	Male			Female			Total		Average Household Size
	Number	%	Average Household Size	Number	%	Average Household Size	Number	%	
Ukerewe	28,751	87	6	4,157	12.6	5	32,909	100	6
Magu	46,417	82	6	9,944	17.6	5	56,360	100	6
Kwimba	36,394	79	6	9,419	20.6	5	45,813	100	6
Sengerema	54,681	85	7	9,980	15.4	5	64,661	100	7
Geita	82,793	89	7	10,494	11.2	5	93,286	100	6
Missungwi	26,748	78	6	7,384	21.6	5	34,132	100	6
Ilemela	10,116	78	5	2,806	21.7	4	12,922	100	5
Total	285,901	84	7	54,184	16	5	340,085	100	6

3.1 HOUSEHOLDS DEMOGRAPHICS: The livelihood Activities/Source of Income of the Households Ranked in Order of Importance by District

District	livelihood activity						
	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	2	1	4	3	7	5	6
Magu	1	4	5	3	6	7	2
Kwimba	1	5	4	2	6	7	3
Sengerema	1	2	5	3	7	6	4
Geita	1	4	5	3	6	7	2
Missungwi	1	2	5	4	6	7	3
Ilemela	1	2	5	3	7	6	4
Total	1	3	5	2	7	6	4

RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES

3.1a RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: First Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	3,944	10,463	499	7,251	1,364	9,077	308
Magu	28,902	4,549	3,030	13,442	3,344	2,352	492
Kwimba	20,935	1,035	2,440	18,759	2,359	105	201
Sengerema	21,067	5,066	4,020	19,271	3,718	9,523	1,244
Geita	47,780	5,114	3,303	30,690	1,715	1,768	2,885
Missungwi	22,497	3,792	1,640	4,471	334	874	428
Ilemela	3,507	2,445	305	4,621	530	1,063	338
Total	148,634	32,464	15,236	98,505	13,364	24,762	5,895
3.1b RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Second Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	14,101	14,795	2,117	573	420	821	248
Magu	19,354	9,169	9,466	10,521	2,801	1,152	3,880
Kwimba	20,568	5,161	9,021	8,738	694	-	1,224
Sengerema	31,451	25,775	3,198	2,626	277	775	755
Geita	38,452	22,707	12,849	11,382	768	-	6,870
Missungwi	9,288	10,512	6,153	5,572	148	571	2,078
Ilemela	5,274	5,424	742	1,112	59	165	217
Total	138,488	93,542	43,546	40,523	5,168	3,485	15,272
3.1c RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Third Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	10,597	5,512	8,709	3,678	254	1,231	1,524
Magu	5,316	8,715	6,921	5,773	3,626	138	22,567
Kwimba	2,831	6,437	6,365	8,282	1,447	103	17,768
Sengerema	10,224	19,613	15,382	5,759	735	738	9,390
Geita	5,320	22,750	12,630	8,407	932	322	35,499
Missungwi	2,257	6,006	6,062	5,304	944	394	10,075
Ilemela	3,325	2,933	1,816	1,393	198	155	1,993
Total	39,869	71,965	57,887	38,597	8,137	3,080	98,817
3.1d RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fourth Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	2,692	1,503	7,546	6,497	80	643	3,880
Magu	1,267	2,969	3,321	4,000	2,495	277	18,204
Kwimba	891	2,757	2,040	2,753	1,445	103	18,387
Sengerema	803	4,839	7,878	6,514	447	1,548	23,708
Geita	384	10,453	8,491	2,721	527	332	31,637
Missungwi	90	1,452	3,057	4,230	920	168	10,353
Ilemela	553	652	2,538	1,142	421	81	2,752
Total	6,681	24,624	34,872	27,856	6,335	3,152	108,920

3.1e RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fifth Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	82	170	2,651	2,990	246	243	6,478
Magu	231	739	1,568	2,229	1,525	248	6,415
Kwimba	-	1,727	828	412	1,044	99	4,506
Sengerema	-	1,318	3,165	3,326	1,033	152	11,558
Geita	-	1,810	4,071	286	327	152	6,506
Missungwi	-	170	415	1,077	497	436	5,185
Ilemela	54	228	544	292	123	54	1,592
Total	368	6,162	13,244	10,612	4,794	1,382	42,239
3.1f RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Sixth Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	-	-	567	322	402	83	1,762
Magu	-	-	-	261	509	-	1,175
Kwimba	-	-	105	-	105	-	403
Sengerema	-	153	373	678	689	-	954
Geita	-	-	167	166	-	-	-
Missungwi	-	-	-	-	402	-	592
Ilemela	-	-	152	188	-	-	159
Total	-	153	1,363	1,614	2,106	83	5,046
3.1g RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Seventh Most Importance							
District	Annual Crop Farming	Permanent Crop Farming	Livestock Keeping / Herding	Off Farm Income	Remittances	Fishing / Hunting & Gathering	Tree / Forest Resources
Ukerewe	85	-	-	80	-	83	164
Magu	-	-	-	129	-	-	-
Kwimba	385	-	-	-	-	-	-
Sengerema	109	148	126	281	-	-	-
Geita	102	-	166	221	-	-	136
Missungwi	-	-	148	-	157	-	-
Ilemela	-	-	-	-	-	26	-
Total	681	148	440	710	157	109	299

HOUSEHOLDS DEMOGRAPHYS

3.2 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Sex and Age Group for the 2002/03 Agricultural Year (row %)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	141,729	50	143,356	50	285,086	100
05 - 09	187,272	52	170,228	48	357,501	100
10 - 14	165,652	51	156,522	49	322,174	100
15 - 19	125,138	52	114,394	48	239,531	100
20 - 24	87,530	48	93,620	52	181,150	100
25 - 29	77,199	48	85,253	52	162,452	100
30 - 34	58,149	49	61,513	51	119,661	100
35 - 39	49,009	51	48,027	49	97,035	100
40 - 44	41,957	48	44,730	52	86,687	100
45 - 49	29,990	48	32,881	52	62,872	100
50 - 54	26,714	47	30,130	53	56,845	100
55 - 59	24,296	59	16,649	41	40,945	100
60 - 64	18,900	52	17,631	48	36,531	100
65 - 69	16,595	56	13,281	44	29,876	100
70 - 74	14,442	57	11,077	43	25,520	100
75 - 79	8,690	61	5,634	39	14,324	100
80 - 84	4,044	53	3,562	47	7,606	100
Above 85	5,440	63	3,147	37	8,586	100
Total	1,082,746	51	1,051,636	49	2,134,382	100

3.3 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Sex and Age Group for the 2002/03 Agricultural Year (column %)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	141,729	13	143,356	14	285,086	13
05 - 09	187,272	17	170,228	16	357,501	17
10 - 14	165,652	15	156,522	15	322,174	15
15 - 19	125,138	12	114,394	11	239,531	11
20 - 24	87,530	8	93,620	9	181,150	8
25 - 29	77,199	7	85,253	8	162,452	8
30 - 34	58,149	5	61,513	6	119,661	6
35 - 39	49,009	5	48,027	5	97,035	5
40 - 44	41,957	4	44,730	4	86,687	4
45 - 49	29,990	3	32,881	3	62,872	3
50 - 54	26,714	2	30,130	3	56,845	3
55 - 59	24,296	2	16,649	2	40,945	2
60 - 64	18,900	2	17,631	2	36,531	2
65 - 69	16,595	2	13,281	1	29,876	1
70 - 74	14,442	1	11,077	1	25,520	1
75 - 79	8,690	1	5,634	1	14,324	1
80 - 84	4,044	0	3,562	0	7,606	0
Above 85	5,440	1	3,147	0	8,586	0
Total	1,082,746	100	1,051,636	100	2,134,382	100

3.4 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members by Sex and District for the 2002/03 Agricultural Year

District	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Ukerewe	102,453	50	103,274	50	205,727	100
Magu	177,451	52	164,953	48	342,404	100
Kwimba	135,814	50	134,930	50	270,744	100
Sengerema	224,434	51	211,979	49	436,413	100
Geita	305,318	51	298,539	49	603,856	100
Missungwi	102,498	49	105,007	51	207,505	100
Ilemela	34,779	51	32,954	49	67,732	100
Total	1,082,746	51	1,051,636	49	2,134,382	100

3.5 HOUSEHOLDS DEMOGRAPHYS: Number of Agriculture Household Members 5 years and above Who Can Read and Write Languages by Type of Language and District, 2002/03 Agricultural Year

District	Read & Write									
	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	123,712	71.6	1,959	1.1	330	0.2	46,684	27.0	172,685	100
Magu	212,326	69.1	6,523	2.1	338	0.1	87,878	28.6	307,066	100
Kwimba	142,813	57.8	6,173	2.5	102	0.0	98,016	39.7	247,104	100
Sengerema	227,858	62.2	10,442	2.9	725	0.2	127,327	34.8	366,353	100
Geita	298,912	58.1	9,010	1.8	0	0.0	206,912	40.2	514,834	100
Missungwi	114,131	62.7	4,216	2.3	89	0.0	63,690	35.0	182,125	100
Ilemela	36,130	61.1	2,035	3.4	229	0.4	20,735	35.1	59,128	100
Total	1,155,882	62.5	40,358	2.2	1,813	0.1	651,243	35.2	1,849,296	100

3.6 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members 5 years and above By School Attendance and District , 2002/03 Agricultural Year

District	School Attendance							
	Attending School		Completed		Never Attended to School		Total	
	Number	%	Number	%	Number	%	Number	%
Ukerewe	52,787	30.6	80,669	46.7	39,229	22.7	172,685	100.0
Magu	99,867	32.5	120,750	39.3	86,449	28.2	307,066	100.0
Kwimba	65,393	26.5	88,863	36.0	92,848	37.6	247,104	100.0
Sengerema	113,098	30.9	138,036	37.7	115,219	31.5	366,353	100.0
Geita	139,042	27.0	178,234	34.6	197,559	38.4	514,834	100.0
Missungwi	51,084	28.0	73,051	40.1	57,990	31.8	182,125	100.0
Ilemela	16,929	28.6	23,008	38.9	19,192	32.5	59,128	100.0
Total	538,199	29.1	702,612	38.0	608,486	32.9	1,849,296	100.0

3.7 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members by Main Activity and District, 2002/03 Agricultural Year

District	Main Activity									
	Crop/Seaweed Farming		Livestock Keeping / Herding		Livestock Pastoralist		Fishing		Government / Parastatal	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	78,813	45.6	3,373	2.0	84	0.0	13,703	7.9	1,136	1
Magu	156,097	50.8	4,081	1.3	199	0.1	6,339	2.1	772	0
Kwimba	136,944	55.4	5,311	2.1	0	0.0	0	0.0	988	0
Sengerema	155,555	42.5	1,904	0.5	0	0.0	12,917	3.5	3,066	1
Geita	293,452	57.0	4,854	0.9	331	0.1	467	0.1	2,475	0
Missungwi	98,006	53.8	2,517	1.4	90	0.0	1,458	0.8	1,727	1
Ilemela	29,599	50.1	323	0.5	0	0.0	1,172	2.0	631	1
Total	948,466	51.3	22,363	1.2	704	0.0	36,055	1.9	10,794	1

cont... Number of Agricultural Household Members By Main Activity and District, 2002/03 Agricultural Year

District	Main Activity									
	Private - NGO / Mission / etc		Self Employed (Non Farming) with Employees		Self Employed (Non Farming) without Employees		Unpaid Family Helper (Non Agriculture)		Not Working & Available	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	1,465	0.8	1,278	0.7	925	0.5	159	0.1	72	0.0
Magu	2,839	0.9	2,267	0.7	1,714	0.6	1,453	0.5	773	0.3
Kwimba	2,624	1.1	1,131	0.5	992	0.4	718	0.3	1,462	0.6
Sengerema	2,257	0.6	851	0.2	21,443	5.9	1,161	0.3	299	0.1
Geita	2,068	0.4	3,937	0.8	1,931	0.4	2,087	0.4	1,301	0.3
Missungwi	1,017	0.6	1,364	0.7	3,257	1.8	607	0.3	176	0.1
Illemela	1,179	2.0	489	0.8	3,162	5.3	157	0.3	0	0.0
Total	13,450	0.7	11,317	0.6	33,424	1.8	6,342	0.3	4,084	0.2

cont... Number of Agricultural Household Members By Main Activity and District, 2002/03 Agricultural Year

District	Main Activity											
	Not Working & Unavailable		Housemaker / Housewife		Student		Unable to Work / Too Old / Retired / Sick / Disabled		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	0	0.0	83	0.0	50,724	29.4	18,870	10.9	2,002	1	172,685	100
Magu	263	0.1	1,985	0.6	96,818	31.5	31,207	10.2	258	0	307,066	100
Kwimba	0	0.0	1,503	0.6	62,764	25.4	30,196	12.2	2,471	1	247,104	100
Sengerema	0	0.0	1,057	0.3	108,408	29.6	52,914	14.4	4,520	1	366,353	100
Geita	165	0.0	2,468	0.5	134,520	26.1	58,782	11.4	5,995	1	514,834	100
Missungwi	90	0.0	427	0.2	49,381	27.1	21,008	11.5	1,003	1	182,125	100
Illemela	114	0.2	101	0.2	16,181	27.4	5,966	10.1	54	0	59,128	100
Total	632	0.0	7,625	0.4	518,794	28.1	218,943	11.8	16,304	0.9	1,849,296	100

3.8 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of involvement in Farming Activity and District, 2002/03 Agricultural Year

District	Involvement in Farming									
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	80,999	47	2,782	2	52,884	31	36,020	21	172,685	100
Magu	136,964	45	9,706	3	103,466	34	56,930	19	307,066	100
Kwimba	104,228	42	15,651	6	84,408	34	42,817	17	247,104	100
Sengerema	145,062	40	9,344	3	146,381	40	65,566	18	366,353	100
Geita	226,401	44	8,288	2	199,231	39	80,914	16	514,834	100
Missungwi	92,568	51	8,813	5	49,300	27	31,444	17	182,125	100
Ilemela	24,944	42	1,784	3	22,548	38	9,852	17	59,128	100
Total	811,167	44	56,369	3	658,218	36	323,543	17	1,849,296	100

3.9 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Education Level									
	Under Standard One		Standard One		Standard Two		Standard Three		Standard Four	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	80	0.1	480	1	1,616	2	3,805	5	7,620	9
Magu	512	0.4	2,759	2	3,207	3	4,714	4	12,861	11
Kwimba	104	0.1	308	0	1,752	2	2,235	3	9,095	10
Sengerema	0	0.0	821	1	4,755	3	4,831	3	14,577	11
Geita	480	0.3	2,671	1	5,615	3	7,357	4	15,092	8
Missungwi	0	0.0	338	0	1,392	2	1,419	2	5,282	7
Ilemela	0	0.0	176	1	919	4	1,216	5	1,848	8
Total	1,176	0.2	7,552	1	19,257	3	25,576	4	66,375	9

cont... HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Education Level									
	Standard Seven		Standard Eight		Training After Primary Education		Pre Form One		Form One	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	57,859	72	951	1	82	0	0	0	0	0
Magu	84,808	70	1,086	1	0	0	0	0	393	0
Kwimba	66,033	74	1,083	1	308	0	0	0	194	0
Sengerema	92,105	67	1,674	1	454	0	126	0	454	0
Geita	126,334	71	1,802	1	709	0	0	0	331	0
Missungwi	57,260	78	1,082	1	165	0	0	0	76	0
Ilemela	15,947	69	192	1	113	0	0	0	97	0
Total	500,346	71	7,869	1	1,832	0	126	0	1,547	0

cont... HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Education Level									
	Form Two		Form Three		Form Four		Form Six		Secondary Education	
	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	653	1	0	0	885	1	0	0	164	0
Magu	729	1	417	0	1,277	1	218	0	80	0
Kwimba	210	0	101	0	2,334	3	0	0	92	0
Sengerema	438	0	419	0	3,767	3	153	0	893	1
Geita	1,379	1	168	0	2,316	1	0	0	822	0
Missungwi	394	1	0	0	1,904	3	159	0	240	0
Ilemela	78	0	0	0	449	2	87	0	145	1
Total	3,881	1	1,106	0	12,933	2	618	0	2,436	0

cont... HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2002/03 Agricultural Year

District	Education Level							
	Tertiary Education		Adult Education		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Ukerewe	83	0	1,419	2	0	0	80,669	100
Magu	0	0	1,124	1	0	0	120,750	100
Kwimba	0	0	1,235	1	0	0	88,863	100
Sengerema	129	0	2,179	2	0	0	138,036	100
Geita	0	0	1,795	1	0	0	178,234	100
Missungwi	69	0	923	1	0	0	73,051	100
Ilemela	0	0	157	1	0	0	23,008	100
Total	281	0	8,834	1	0	0	702,612	100

3.10 HOUSEHOLDS DEMOGRAPHYS: Number of Agricultural Households and Average Household Size By Sex of the Head of Household and District, 2002/03 Agricultural Year

District	Male			Female			Total		Average Household Size
	Number	%	Average Household Size	Number	%	Average Household Size	Number	%	
Ukerewe	28,751	87	6	4,157	12.6	5	32,909	100	6
Magu	46,417	82	6	9,944	17.6	5	56,360	100	6
Kwimba	36,394	79	6	9,419	20.6	5	45,813	100	6
Sengerema	54,681	85	7	9,980	15.4	5	64,661	100	7
Geita	82,793	89	7	10,494	11.2	5	93,286	100	6
Missungwi	26,748	78	6	7,384	21.6	5	34,132	100	6
Ilemela	10,116	78	5	2,806	21.7	4	12,922	100	5
Total	285,901	84	7	54,184	16	5	340,085	100	6

3.11 HOUSEHOLD DEMOGRAPHYS: Number of Agricultural Households By Number of Household Members with Off-farm Income Generating Activities and District, 2002/03 Agricultural Year

District	Number of household members with Off farm income							
	One		Two		More than Two		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Ukerewe	16,909	75	3,739	17	1,755	8	22,403	100
Magu	25,180	64	8,374	21	5,497	14	39,051	100
Kwimba	20,045	51	13,599	35	5,588	14	39,231	100
Sengerema	32,578	77	5,540	13	4,313	10	42,431	100
Geita	39,365	68	13,014	23	5,394	9	57,773	100
Missungwi	16,457	73	4,134	18	1,827	8	22,418	100
Ilemela	7,121	75	1,967	21	467	5	9,555	100
Total	157,655	68	50,366	22	24,841	11	232,862	100

3.12 HOUSEHOLDS DEMOGRAPHYS: Number of Heads of Agricultural Households By Maximum Education Level Attained and District, 2002/03 Agricultural Year

District	Maximum Education Level Attained							
	No Education	Primary Education	Post Primary Education	Secondary Education	Post Secondary Education	University & Equivalent Education	Adult Education	Total
Ukerewe	6,395	24,899	82	788	82	83	580	32,909
Magu	19,218	34,638	0	1,619	160	0	726	56,360
Kwimba	20,828	23,025	103	1,136	0	0	721	45,813
Sengerema	19,335	40,056	303	2,814	740	129	1,285	64,661
Geita	36,504	52,889	85	1,941	822	0	1,045	93,286
Missungwi	13,776	18,216	0	1,201	240	69	631	34,132
Ilemela	5,005	7,218	113	344	86	0	157	12,922
Total	121,060	200,941	686	9,843	2,130	281	5,144	340,085

3.13 HOUSEHOLDS DEMOGRAPHYS: Mean, Median, Mode of Age of Head of Agricultural Household and District

District	Male			Female			Total		
	Mean	Median	Mode	Mean	Median	Mode	Mean	Median	Mode
Ukerewe	45	42	40	52	50	45	46	42	40
Magu	49	45	30	54	54	60	50	48	45
Kwimba	47	46	40	54	53	70	49	47	40
Sengerema	45	42	40	49	48	42	46	43	40
Geita	44	41	30	51	50	50	45	42	30
Missungwi	46	43	30	50	49	50	47	44	30
Ilemela	46	41	40	52	55	56	47	45	35
Total	46	43	30	52	50	50	47	44	30

3.14 Time Series of Male and Female Headed Households

Type of Holding	NCSA 1994/95	EAS 1995/96	EAS 1996/97	IAS 1997/98	DIAS 1998/99	NCSA 2002/03
Male Heads	175	179	192	204	205	200
Female Heads	203	230	255	268	261	264
Total	378	409	447	472	466	464
Male headed (Percentage)	82	78	75	76	78	76
Female headed (Percentage)	18	22	25	24	22	24
Total	100	100	100	100	100	100

3.15 Literacy Rate of Heads of Households by Sex and District

District	Literacy								
	Know			Don't know			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ukerewe	24,506	2,156	26,661	4,246	2,002	6,247	28,751	4,157	32,909
Magu	34,219	3,570	37,790	12,197	6,373	18,571	46,417	9,944	56,360
Kwimba	22,305	2,568	24,873	14,089	6,851	20,940	36,394	9,419	45,813
Sengerema	40,914	4,291	45,205	13,767	5,689	19,457	54,681	9,980	64,661
Geita	55,081	2,506	57,587	27,712	7,988	35,700	82,793	10,494	93,286
Missungwi	17,674	2,403	20,077	9,075	4,981	14,055	26,748	7,384	34,132
Ilemela	7,149	820	7,968	2,968	1,986	4,954	10,116	2,806	12,922
Total	201,847	18,315	220,161	84,054	35,869	119,923	285,901	54,184	340,085

LAND ACCESS/OWNERSHIP

4.1 LAND ACCESS/OWNERSHIP: Number of Farming Households by Type of Land Ownership/Tenure and District for the 2002/03 Agricultural Year

District	Land Access														Total Number of Households
	Leased/Certificate of Ownership		Owned under Customary Law		Bought		Rented		Borrowed		Area Shared Cropped		Area under Other Forms of Tenure		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	6,404	13	27,684	55	2,745	5	8,623	17	2,867	6	300	1	2,113	4	50,736
Magu	1,105	1	47,174	63	11,813	16	7,416	10	6,118	8	537	1	886	1	75,048
Kwimba	1,756	3	34,987	54	13,307	20	9,145	14	3,737	6	311	0	1,813	3	65,057
Sengerema	2,422	3	39,132	45	23,990	27	14,872	17	4,558	5	1,092	1	1,430	2	87,496
Geita	6,688	6	53,640	44	29,178	24	17,661	15	8,718	7	896	1	4,144	3	120,926
Missungwi	1,789	3	24,603	48	13,312	26	6,468	12	3,576	7	819	2	1,209	2	51,777
Ilemela	714	4	8,820	46	5,372	28	2,867	15	1,189	6	53	0	260	1	19,276
Total	20,878	4	236,041	50	99,716	21	67,053	14	30,762	7	4,009	1	11,857	3	470,316

4.2 LAND ACCESS/OWNERSHIP: Area of Land (ha) by Ownership/Tenure (Hectare) and District for the 2002/03 Agricultural Year

District	Land Access/ Ownership (Hectare)							
	Area Leased/Certificate of Ownership	Area Owned Under Customary Law	Area Bought	Area Rented	Area Borrowed	Area Shared Cropped	Area under Other Forms of Tenure	Total
Ukerewe	2,544	23,491	1,282	3,662	996	70	641	32,686
Magu	3,579	119,209	19,174	7,021	4,642	202	1,118	154,944
Kwimba	1,975	81,670	46,195	9,013	2,555	168	1,879	143,455
Sengerema	6,684	81,689	44,685	10,440	2,952	1,660	1,187	149,297
Geita	15,604	144,341	73,648	14,971	7,357	330	4,355	260,606
Missungwi	1,503	66,192	27,322	6,186	2,751	1,069	1,248	106,270
Ilemela	771	10,248	4,404	1,418	340	11	70	17,262
Total	32,661	526,839	216,710	52,710	21,592	3,510	10,498	864,520
%	3.8	60.9	25.1	6.1	2.5	0.4	1.2	100.0

LAND USE

5.1 LAND USE: Number of Agricultural Households By Type of Land Use and District for the 2002/03 Agricultural Year

Districts	Type of Land Use													Total Number of Households
	Households with Temporary Mono Crops	Households with Temporary Mixed Crops	Households with Permanent Mono Crops	Households with Permanent Mixed Crops	Households with Permanent / Annual Mix	Households with Pasture	Households with Fallow	Households with Natural Bush	Households with Planted Trees	Households Rented to Others	Households with area Unusable	Households of Uncultivated Usable Land	Area of land Utilized by household	
Ukerewe	11,590	3,549	11,507	4,423	25,379	247	572	831	8,819	2,661	3,256	17,990	90,823	32,909
Magu	49,355	19,226	12,269	1,356	10,867	874	790	928	3,821	2,146	2,908	14,176	118,714	56,360
Kwimba	40,796	22,805	12,833	915	1,848	4,289	415	1,742	11,411	2,142	1,950	18,916	120,061	45,813
Sengerema	42,218	25,928	20,817	3,123	39,316	2,363	1,124	1,151	4,182	2,706	5,380	28,916	177,223	64,661
Geita	60,440	38,352	17,297	4,279	39,782	3,037	2,064	535	3,030	943	2,307	12,175	184,240	93,286
Missungwi	30,212	17,039	7,857	1,635	11,206	1,141	605	225	4,232	499	782	2,015	77,446	34,132
Ilemela	8,129	4,194	2,892	790	8,172	0	490	5,645	42,153	11,584	17,446	101,350	202,847	12,922
Total	242,740	131,092	85,472	16,520	136,569	11,950	6,060	11,057	77,647	22,681	34,029	195,537	971,355	340,085

5.2 LAND USE: Area of Land (Ha) by type of Land Use and District for the 2002/03 Agricultural Year

District	Land use area												
	Area under Temporary Mono Crops	Area under Temporary Mixed Crops	Area under Permanent Mono Crops	Area under Permanent Mixed Crops	Area under Permanent / Annual Mix	Area under Pasture	Area under Fallow	Area under Natural Bush	Area under Planted Trees	Area Rented to Others	Area Unusable	Area of Uncultivated Usable Land	Total
Ukerewe	2,880	1,294	5,336	1,880	16,112	135	179	190	499	350	302	3,529	32,686
Magu	71,235	21,938	8,128	999	9,826	2,416	361	1,914	7,702	2,331	3,204	24,889	154,944
Kwimba	64,685	31,790	7,068	660	1,696	7,255	2,094	1,425	1,051	2,620	3,209	19,902	143,455
Sengerema	37,119	25,694	16,231	2,751	34,710	4,587	828	1,191	1,849	2,568	1,091	20,678	149,297
Geita	78,090	39,477	13,049	3,182	51,045	3,417	2,801	487	2,247	5,959	8,661	52,257	260,672
Missungwi	45,024	21,589	5,655	1,120	9,214	1,571	519	452	334	1,453	2,439	16,901	106,270
Ilemela	3,791	1,939	1,504	480	6,658	0	285	61	534	360	329	1,320	17,262
Total	302,825	143,721	56,971	11,071	129,262	19,382	7,068	5,720	14,216	15,640	19,235	139,476	864,585
%	0.4	0.2	0.2	0.1	0.8	0.0	0.0	0.0	0.1	0.0	0.0	0.2	2.0

5.3 LAND USE: Number of Agricultural Households by Whether All Land Available to the Household Was Used and District, 2002/03 Agricultural Year

District	Was all Land Available to the Hh Used During 2002/03?					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Ukerewe	24,516	74	8,393	26	32,909	100
Magu	34,824	62	21,024	38	55,848	100
Kwimba	28,721	63	17,092	37	45,813	100
Sengerema	41,702	65	22,831	35	64,533	100
Geita	56,088	60	36,778	40	92,866	100
Missungwi	19,722	58	14,411	42	34,132	100
Ilemela	9,295	72	3,532	28	12,827	100
Total	214,868	63	124,060	37	338,929	100

5.4 LAND USE: Number of Agricultural Households by Whether they Consider Having Sufficient Land for the Household and District, 2002/03 Agricultural Year

District	Do you Consider that you have sufficient land for the Hh?					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Ukerewe	11,901	36	21,008	64	32,909	100
Magu	24,829	44	31,019	56	55,848	100
Kwimba	21,662	47	24,151	53	45,813	100
Sengerema	27,729	43	36,804	57	64,533	100
Geita	37,246	40	55,620	60	92,866	100
Missungwi	18,923	55	15,209	45	34,132	100
Ilemela	5,066	39	7,761	61	12,827	100
Total	147,356	43	191,573	57	338,929	100

5.5 LAND USE: Number of Agricultural Households by whether Female Members of the Household Own or Have Customary Right to Land and District, 2002/03 Agricultural Year

District	Do any Female Members of the Hh own or have customary right					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Ukerewe	4,788	15	28,121	85	32,909	100
Magu	10,233	18	45,615	82	55,848	100
Kwimba	8,208	18	37,605	82	45,813	100
Sengerema	10,133	16	54,401	84	64,533	100
Geita	7,014	8	85,852	92	92,866	100
Missungwi	10,378	30	23,754	70	34,132	100
Ilemela	1,810	14	11,017	86	12,827	100
Total	52,563	16	286,366	84	338,929	100

**TOTAL ANNUAL CROP & VEGETABLES PRODUCTION
LONG & SHORT SEASONS**

7.1 & 7.2a TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Area Planted (ha) by Season and District.

District	Short Season		Long Season		Total Area Planted (Hectare)	% Area planted in Short Season
	Number of household	Planted area (hectare)	Number of household	Planted Area (hectare)		
Ukerewe	38424	6557	55794	28042	34599	19.0
Magu	147701	89481	40099	31964	121444	73.7
Kwimba	127954	78941	38375	37404	116345	67.9
Sengerema	164,220	64,538	89,057	55,565	120,102	53.7
Geita	237,525	135,878	66,607	51,080	186,958	72.7
Missungwi	99,896	56,631	41,771	28,049	84,679	66.9
Ilemela	30,388	6,153	23,189	8,826	14,979	41.1
Total	846,108	438,177	354,891	240,929	679,107	64.5

7.1 & 7.2b TOTAL ANNUAL CROPS AND VEGETABLE PRODUCTION: Number of Crop Growing Households Planting Crops by Season and District.

District	Short Season		Long Season		Total Number of Crop Growing Households
	Number of households Growing Crops	Number of households NOT Growing Crops	Number of households Growing Crops	Number of households NOT Growing Crops	
Ukerewe	24298	32,909	18,980	13,929	43,278
Magu	54345	56,360	13,409	42,952	67,754
Kwimba	45001	45,813	15,451	30,362	60,452
Sengerema	63078	64,661	27,234	37,428	90,312
Geita	91318	93,286	22,362	70,925	113,680
Missungwi	33872	34,132	14,898	19,234	48,771
Ilemela	10334	12,922	7,192	5,731	17,525
Total	322248	340,085	119,525	220,560	441,773

7.1 & 7.2c TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Area planted (ha) and Quantity Harvested by Season and Crop for the 2002/03 agriculture year, Mwanza Region

Crop	Short Season			Long Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity harvested (tons)	Yield (Kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (Kg/ha)
Maize	195,556	142,605	729	12,956	8,199	633	208,512	150,804	1,362
Paddy	51,928	42,906	826	35,303	38,899	1,102	87,231	81,805	1,928
Sorghum	10,556	6,698	635	1,882	1,573	836	12,438	8,271	1,470
Bulrush Millet	1,690	509	301	1,882	684	363	3,572	1,192	664
Finger Millet	2,468	1,202	487	908	1,191	1,311	3,376	2,394	1,799
CEREALS	262,197	193,921	2,978	52,931	50,546	4,245	315,128		
Cassava	1,443	2,238	1,551	139,780	202,065	1,446	141,223	204,303	2,997
Sweet Potatoes	23,491	31,770	1,352	11,227	15,321	1,365	34,717	47,092	2,717
Irish Potatoes	304	319	1,048	83	78	941	387	396	1,989
ROOTS & TUBERS	25,238	34,327	3,952	151,089	217,463	3,751	176,327		
Mung Beans	0	0	0	0	0	0	0	0	0
Beans	30,865	12,575	407	1,679	642	382	32,544	13,217	790
Cowpeas	4,378	1,509	345	467	149	320	4,845	1,658	665
Green Gram	8,443	2,362	280	285	71	249	8,728	2,433	529
Chich Peas	157	142	908	29,738	15,090	507	29,894	15,232	1,416
Bambaranuts	769	414	538	190	64	339	959	478	876
PULSES	44,612	17,002	2,478	32,357	16,016	1,798	76,970		
Sunflower	66	28	430	0	0	0	65,503	28	430
Simsim	266	181	682	58	26	441	325	207	1,123
Groundnuts	18,367	9,208	501	566	180	317	18,934	9,388	818
Soya Beans	142	5	38	0	0	0	142	5	38
OIL SEEDS & OIL NUTS	18,841	9,423	1,651	625	205	758	19,466		
Okra	6	1	247	0	0	0	6	1	247
Radish	0	0	0	10	68	6,587	10	68	6,587
Onions	206	998	4,845	110	666	6,054	316	1,664	10,899
Cabbage	199	890	4,472	127	657	5,167	326	1,547	9,638
Tomatoes	1,047	6,058	5,786	870	4,657	5,354	1,917	10,714	11,140
Spinnach	20	36	1,840	44	190	4,354	63	226	6,194
Carrot	45	66	1,456	55	51	913	101	117	2,369
Chillies	68	69	1,023	35	108	3,066	103	178	4,089
Amaranths	69	530	7,669	73	173	2,379	142	704	10,049
FRUITS & VEGETABLES	1,660	8,649	27,337	1,324	6,569	33,874	2,984		
Total	352,548			238,327			590,875		

*The total area planted include the sum of the planted area for both Wet and Short Season and it is an overestimation of the actual area due to being produced on the same land during the two seasons. Previous surveys have used the Long/Long Season to estimat

7.1 & 7.2d TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Agriculture Households by Area Planted (ha) and crop for the Agriculture Year 2002/03 - Long and Short rains, Mwanza Region

Crop	Short rainy Season.		Long rainy Season		Total Area Planted Short & Long rainy Season	% Area Planted in Short rain
	Number of Households	Planted area (ha)	Number of Households	Planted area (ha)		
CEREALS	395,037	262,197	79,180	52,931	315,128	83
Maize	288,518	195,556	18,906	12,956	208,512	94
Paddy	77,984	51,928	52,338	35,303	87,231	60
Sorghum	23,161	10,556	4,503	1,882	12,438	85
Bulrush Millet	1,238	1,690	2,017	1,882	3,572	47
Finger Millet	4,137	2,468	1,416	908	3,376	73
ROOTS & TUBERS	103,568	25,238	232,122	151,089	176,327	14
Cassava	3,870	1,443	188,853	139,780	141,223	1
Sweet Potatoes	99,073	23,491	42,936	11,227	34,717	68
Irish Potatoes	625	304	333	83	387	79
PULSES	186,853	44,612	31,445	32,357	76,970	58
Mung Beans	0	0	0	0	0	0
Beans	124,869	30,865	6,935	1,679	32,544	95
Cowpeas	26,972	4,378	2,894	467	4,845	90
Green Gram	29,184	8,443	2,894	285	8,728	97
Chich Peas	498	157	17,535	29,738	29,894	1
Bambaranuts	5,331	769	1,187	190	959	80
OIL SEEDS & OIL NUTS	59,923	18,841	1,735	625	19,466	97
Sunflower	315	66	0	0	66	100
Simsim	1,646	266	289	58	325	82
Groundnuts	57,655	18,367	1,446	566	18,934	97
Soya Beans	307	142	0	0	142	100
FRUITS & VEGETABLES	9,108	1,660	9,264	1,324	2,984	56
Okra	57	6	0	0	6	100
Radish	0	0	169	10	10	0
Onions	1,237	206	656	110	316	65
Cabbage	1,339	199	1,125	127	326	61
Tomatoes	5,016	1,047	5,400	870	1,917	55
Spinnach	153	20	522	44	63	31
Carrot	184	45	302	55	101	45
Chillies	325	68	531	35	103	66
Amaranths	798	69	559	73	142	49
Total		1,660		1,324	2,984	56

7.1 & 7.2e TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area (ha) By Means of Soil Preparation and District Long & Short Season, Mwanza

District	Soil Preparation							
	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Ukerewe	83	7	1,117	210	60,887	10,713	62,087	10,931
Magu	1,503	1,137	75,448	67,443	88,717	34,038	165,668	102,618
Kwimba	307	326	91,527	82,037	28,207	25,621	120,042	107,985
Sengerema	1,066	239	15,209	12,822	185,702	68,430	201,977	81,492
Geita	486	573	38,321	37,031	225,826	115,146	264,633	152,750
Missungwi	1,881	1,056	42,845	36,057	78,460	37,422	123,187	74,535
Ilemela	58	23	693	267	42,677	8,939	43,429	9,229
Total		3,362		235,868		300,310		539,539
%		0.6		43.7		55.7		100.0

7.1 & 7.2f TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Fertilizer Use and District for the 2002/03 Agriculture Year - Long & Short Season, Mwanza

District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area
Ukerewe	24,258	16,288	1,549	1,065	242	78	30,632	17,168	56,681	34,599
Magu	16,822	30,187	3,288	2,450	624	853	64,869	87,954	85,603	121,444
Kwimba	10,559	24,408	1,192	2,129	207	115	59,423	89,692	71,380	116,345
Sengerema	27,399	37,854	148	210	1,738	3,546	91,357	78,492	120,642	120,102
Geita	17,938	40,664	1,420	1,193	1,264	1,714	121,933	143,386	142,555	186,958
Missungwi	9,388	14,806	317	253	1,109	1,527	48,262	68,094	59,076	84,679
Ilemela	6,176	5,124	896	465	1,159	794	12,982	8,597	21,212	14,979
Total	112,540	169,331	8,809	7,764	6,341	8,627	429,458	493,385	557,149	679,107

7.1 & 7.2g TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Irrigation Use and District during Long Season & short, 2002/03 Agriculture Year

District	Irrigation Use						% of Area Planted Under Irrigation
	Households Using Irrigation		Households not Using Irrigation		Total		
	Number of Household	Planted Area (Ha)	Number of Household	Planted Area (Ha)	Number of Household	Planted Area (Ha)	
Ukerewe	31,277	27,551	1,106	491	32,383	28,042	98
Magu	21,722	20,701	9,536	11,263	31,257	31,964	65
Kwimba	14,553	13,383	11,826	24,020	26,379	37,404	36
Sengerema	48,580	43,305	8,984	12,260	57,563	55,565	78
Geita	39,860	40,759	11,377	10,321	51,237	51,080	80
Missungwi	18,487	18,284	6,717	9,765	25,204	28,049	65
Ilemela	10,041	8,220	836	606	10,878	8,826	93
Total	184,520	172,204	50,381	68,725	234,901	240,929	71

7.1 & 7.2h TOTAL ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Insecticide Use and District for the 2002/03 Agriculture Year - Long & Short Season.

District	Insecticide Use						% of Planted Area Using Insecticides
	Households Using Insecticides		Households Not Using Insecticides		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	733	98	93,642	34,491	94,375	34,590	0.3
Magu	9,319	7,775	178,298	63,910	187,617	71,685	10.8
Kwimba	3,006	5,287	163,623	111,235	166,629	116,522	4.5
Sengerema	4,948	1,548	249,133	118,562	254,081	120,110	1.3
Geita	7,610	2,755	297,373	183,173	304,983	185,928	1.5
Missungwi	3,576	867	139,686	30,726	143,262	31,593	2.7
Ilemela	3,532	426	51,088	14,553	54,620	14,979	2.8
Total	32,725	18,756	1,172,843	556,650	1,205,568	575,406	3.3

7.1 & 7.2i TOTAL ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Herbicide Use and District for the 2002/03 Agriculture Year - Long & Short Season.

District	Herbicide Use						% of Planted Area Using Herbicides
	Households Using Herbicide		Households Not Using Herbicide		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	333	84	93,885	34,516	94,218	34,599	1.0
Magu	9,006	5,457	178,794	115,987	187,800	121,444	7.4
Kwimba	2,142	4,214	164,187	112,131	166,329	116,345	1.8
Sengerema	1,554	676	251,723	119,426	253,276	120,102	1.3
Geita	9,082	7,873	295,049	179,084	304,131	186,958	4.9
Missungwi	1,841	1,026	139,826	83,653	141,667	84,679	2.2
Ilemela	570	141	53,007	14,838	53,577	14,979	3.8
Total	24,528	19,472	1,176,471	659,634	1,200,999	679,107	3.6
%	2.0	2.9	98.0	97.1	100.0	100.0	

7.1 & 7.2j TOTAL ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Fungicides Use and District for the 2002/03 Agriculture Year - Long & Short Season.

District	Fungicide Use						% of Planted Area Using Fungicides
	Households Using Fungicide		Households Not Using Fungicide		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	409	153	56,272	34,447	56,681	34,599	0.4
Magu	3,975	8,139	81,628	113,305	85,603	121,444	6.7
Kwimba	1,550	5,787	69,829	110,558	71,380	116,345	5.0
Sengerema	1,704	2,108	118,938	117,994	120,642	120,102	1.8
Geita	1,890	2,631	140,665	184,326	142,555	186,958	1.4
Missungwi	1,575	1,695	57,502	82,985	59,076	84,679	2.0
Ilemela	1,435	1,362	19,777	13,617	21,212	14,979	9.1
Total	12,539	21,876	544,610	657,231	557,149	679,107	3.2

7.1 & 7.2k TOTAL ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Improved Seed Use and District for the 2002/03 Agriculture Year - Long & Short Season.

District	Improved Seed Use						% of Planted Area Using Improved Seeds
	Households Using Improved Seed		Households Not Using Improved Seed		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	8,198	2,615	35,080	8,315	16,514	10,930	23.9
Magu	30,450	51,630	37,305	50,987	81,437	102,618	50.3
Kwimba	14,220	35,225	46,233	72,760	86,980	107,985	32.6
Sengerema	25,644	33,089	64,668	48,402	74,046	81,492	40.6
Geita	23,149	34,154	90,531	118,596	141,745	152,750	22.4
Missungwi	13,313	18,805	35,458	55,730	69,043	74,535	25.2
Ilemela	6,661	4,089	10,864	5,141	11,802	9,229	44.3
Total	121,634	179,608	320,139	359,932	481,566	539,539	33.3

**ANNUAL CROP & VEGETABLES PRODUCTION
Short SEASON**

7.1a ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Households and Planted Area by Means Used for Soil Preparation and District - Short SEASON, Mwanza Region.

District	Soil Preparation							
	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Ukerewe	83	7	715	114	23,807	6,421	24,605	6,541
Magu	1,503	1,137	65,088	56,770	31,315	30,854	97,906	88,761
Kwimba	203	242	73,777	56,570	16,173	18,992	90,152	75,804
Sengerema	461	87	10,819	8,476	58,638	55,619	69,918	64,181
Geita	486	573	33,122	31,605	79,434	108,857	113,042	141,036
Missungwi	1,283	901	34,929	27,147	21,056	27,235	57,268	55,284
Ilemela	0	0	315	152	10,174	5,991	10,489	6,143
Total	4,019	2,947	218,765	180,834	240,596	253,970	463,379	437,751
%	0.9	0.7	47.2	41	51.9	58.0	100	100

7.1b ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Crop Growing Households and Planted Area by Fertilizer Use and District during 2002/03 Agriculture Year - Short SEASON, Mwanza Region

District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Ukerewe	10,402	2,881	237	154	75	8	13,584	3,514	24,298	6,557
Magu	12,628	24,045	1,369	940	380	752	39,968	63,744	54,345	89,481
Kwimba	8,824	19,362	1,090	2,098	104	105	34,984	57,376	45,001	78,941
Sengerema	19,884	25,047	148	210	1,007	3,012	42,040	36,269	63,078	64,538
Geita	16,675	38,205	1,253	1,166	469	688	72,921	95,818	91,318	135,878
Missungwi	7,457	13,040	166	169	450	456	25,799	42,966	33,872	56,631
Ilemela	3,613	2,378	575	206	478	318	5,668	3,251	10,334	6,153
Total	79,483	124,960	4,839	4,942	2,963	5,339	234,963	302,938	322,248	438,177
%	24.7	29	1.5	1.1	0.9	1.2	73	69	100	100

7.1c ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Crop Growing Households and Planted Area by Irrigation Use and District during Short Season, 2002/03 Agriculture Year, Mwanza Region

District	Irrigation Use						% of planted area under irrigation in Short season
	Households Using Irrigation		Households Not Using Irrigation		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	1069	227	37,355	6,331	38424	6,557	3.5
Magu	3036	1,569	144,665	87,912	147701	89,481	1.8
Kwimba	1243	1,178	126,711	77,763	127954	78,941	1.5
Sengerema	3,269	724	160,951	63,814	164,220	64,538	1.1
Geita	9862	5,201	227,663	130,677	237525	135,878	3.8
Missungwi	2527	737	97370	55894	99896	56631	1.3
Ilemela	3494	503	26894	5650	30388	6153	8.2
Total	24,500	10,137	821,609	428,040	846,108	438,177	2.3
%	2.9	2.3	97.1	97.7	100.0	100	

7.1d ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Insecticide Use and District for the 2002/03 Agriculture Year - Short Season.

District	Insecticide Use						% of Planted Area Using Insecticides
	Household Using Insecticides		Households Not Using Insecticides		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	587	171	23,711	6,387	24,298	6,557	3
Magu	11,883	30,578	42,462	58,902	54,345	89,481	34
Kwimba	1,456	5,396	43,545	73,545	45,001	78,941	7
Sengerema	6,513	12,512	56,565	52,026	63,078	64,538	19
Geita	7,226	14,936	84,092	120,941	91,318	135,878	11
Missungwi	2,290	4,934	31,582	51,697	33,872	56,631	9
Ilemela	414	403	9,919	5,749	10,334	6,153	7
Total	30,371	68,931	291,877	369,247	322,248	438,177	16

7.1e ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Herbicides Use and District for the 2002/03 Agriculture Year - Short Season.

District	Herbicide Use						% of Planted Area Using Herbicides
	Household Using Herbicides		Households Not Using Herbicides		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	83	12	24,215	6,545	24,298	6,557	0.2
Magu	2,828	4,346	51,517	85,134	54,345	89,481	4.9
Kwimba	606	3,113	44,396	75,828	45,001	78,941	3.9
Sengerema	277	275	62,802	64,263	63,078	64,538	0.4
Geita	2,812	6,381	88,507	129,496	91,318	135,878	4.7
Missungwi	252	781	33,620	55,850	33,872	56,631	1.4
Ilemela	157	71	10,176	6,082	10,334	6,153	1.2
Total	7,015	14,979	315,233	423,199	322,248	438,177	3.4

7.1f ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Fungicide Use and District for the 2002/03 Agriculture Year - Dry Season.

District	Fungicide Use						% of Planted Area Using Fungicides
	Household Using Fungicides		Households Not Using Fungicides		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	167	25	24,131	6,532	24,298	6,557	0.4
Magu	3,089	7,366	51,256	82,114	54,345	89,481	8.2
Kwimba	727	3,888	44,274	75,053	45,001	78,941	4.9
Sengerema	847	1,405	62,232	63,132	63,078	64,538	2.2
Geita	1,086	1,495	90,232	134,382	91,318	135,878	1.1
Missungwi	395	372	33,477	56,258	33,872	56,631	0.7
Ilemela	408	436	9,926	5,717	10,334	6,153	7.1
Total	6,719	14,989	315,529	423,189	322,248	438,177	3.4

7.1g ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Improved Seed Use and District During 2002/03 Crop Year - Short SEASON

District	Improved Seed Use						% of Planted Area Using Improved Seed
	Households Using Improved Seed		Households Not Using Improved Seed		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Ukerewe	6,125	2,021	18,173	4,536	24,298	6,557	30.8
Magu	26,982	49,673	27,363	39,808	54,345	89,481	55.5
Kwimba	10,026	22,428	34,975	56,513	45,001	78,941	28.4
Sengerema	21,885	29,482	41,194	35,056	63,078	64,538	45.7
Geita	21,318	33,093	70,000	102,785	91,318	135,878	24.4
Missungwi	10,685	15,933	23,188	40,698	33,872	56,631	28.1
Ilemela	4,365	3,157	5,969	2,995	10,334	6,153	51.3
Total	101,387	155,787	220,861	282,391	322,248	438,177	
%	31	36	69	64	100	100	35.6

**ANNUAL CROP & VEGETABLES PRODUCTION
LONG SEASON**

7.2a ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Households and Planted Area by Means Used for Soil Preparation and District - Long SEASON, Mwanza Region.

District	Soil Preparation							
	Mostly Tractor Ploughing		Mostly Oxen Ploughing		Mostly Hand Cultivation		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Ukerewe	0	0	323	92	18,657	4,281	18,980	4,373
Magu	0	0	7,871	10,673	5,538	2,464	13,409	13,137
Kwimba	105	85	12,251	25,836	3,095	3,124	15,451	29,044
Sengerema	605	183	3,157	4,317	23,471	12,455	27,234	16,954
Geita	0	0	4,875	5,655	17,487	11,218	22,362	16,873
Missungwi	331	126	5,979	9,104	8,589	8,674	14,898	17,904
Ilemela	58	23	188	88	6,946	2,966	7,192	3,077
Total	1,098	417	34,644	55,764	83,783	45,181	119,525	101,362
%	0.9	0.4	29.0	55.0	70.1	45	100	100

7.2b ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Crop Growing Households and Planted Area by Fertilizer Use and District during 2002/03 Agriculture Year - Long SEASON, Mwanza Region

District	Fertilizer Use									
	Mostly Farm Yard Manure		Mostly Compost		Mostly Inorganic Fertilizer		No Fertilizer Applied		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
Ukerewe	21,405	13,006	2,288	849	333	79	31,768	14,109	55,794	28,042
Magu	5,857	6,027	2,140	1,523	630	361	31,471	24,052	40,099	31,964
Kwimba	4,011	5,346	299	151	196	85	33,869	31,821	38,375	37,404
Sengerema	12,244	12,407	589	207	731	218	75,492	42,732	89,057	55,565
Geita	3,433	2,711	598	499	1,303	280	61,273	47,590	66,607	51,080
Missungwi	4,345	2,225	151	61	1,105	676	36,170	25,086	41,771	28,049
Ilemela	5,810	2,355	957	346	1,216	345	15,206	5,781	23,189	8,826
Total	57,106	44,079	7,024	3,636	5,514	2,044	285,248	191,171	354,891	240,929

7.2c ANNUAL CROP AND VEGETABLE PRODUCTION: Total Number of Crop Growing Households and Planted Area by Irrigation Use and District during Long Season, 2002/03 Agriculture Year, Mwanza Region

District	Irrigation Use						% of planted area under irrigation in short season
	Households Using Irrigation		Households Not Using Irrigation		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	32,241	23,584	23,554	4,458	55,794	28,042	84
Magu	22,899	19,037	17,199	12,927	40,099	31,964	60
Kwimba	14,750	8,752	23,624	28,652	38,375	37,404	23
Sengerema	50,931	32,437	38,126	23,127	89,057	55,565	58
Geita	43,188	34,940	23,419	16,140	66,607	51,080	68
Missungwi	20,245	10,249	21,526	17,800	41,771	28,049	37
Ilemela	12,678	6,143	10,511	2,683	23,189	8,826	70
Total	196,932	135,143	157,958	105,786	354,891	240,929	56
%	55.5	56.1	44.5	43.9	100	100	

7.2d ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Insecticide Use and District for the 2002/03 Agriculture Year - Long Season.

District	Insecticide Use						% of Planted Area Using Insecticides
	Households Using Insecticides		Households Not Using Insecticides		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	663	130	55,131	27,912	55,794	28,042	0.46
Magu	2,648	3,955	37,451	28,008	40,099	31,964	12.37
Kwimba	1,033	2,934	37,342	34,470	38,375	37,404	7.84
Sengerema	3,607	1,044	85,449	54,521	89,057	55,565	1.88
Geita	3,730	1,918	62,876	49,162	66,607	51,080	3.75
Missungwi	2,364	859	39,407	27,190	41,771	28,049	3.06
Ilemela	1,850	420	21,339	8,407	23,189	8,826	4.75
Total	15,895	11,259	338,995	229,670	354,891	240,929	4.67

7.2e ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Herbicide Use and District for the 2002/03 Agriculture Year - Long Season.

District	Herbicide Use						% of Planted Area Using Herbicides
	Households Using Herbicide		Households Not Using Herbicide		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	250	93	32,132	27,950	32,383	28,042	0.3
Magu	792	810	30,465	31,153	31,257	31,964	2.5
Kwimba	524	1,590	25,855	35,814	26,379	37,404	4.3
Sengerema	563	431	57,001	55,133	57,563	55,565	0.8
Geita	1,057	1,203	50,181	49,877	51,237	51,080	2.4
Missungwi	90	73	25,114	27,976	25,204	28,049	0.3
Ilemela	209	259	10,669	8,567	10,878	8,826	2.9
Total	3,484	4,459	231,417	236,470	234,901	240,929	1.9
%	1.5	1.9	98.5	98.1	100	100	

7.2f ANNUAL CROP & VEGETABLE PRODUCTION: Total Number of Agriculture Households and Planted Area by Fungicide Use and District for the 2002/03 Agriculture Year - Long SEASON

District	Fungicide Use						% of Planted Area Using Fungicides
	Households Using Fungicide		Households Not Using Fungicide		Total		
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	
Ukerewe	242	127	32,141	27,915	32,383	28,042	0.5
Magu	886	773	30,371	31,191	31,257	31,964	2.4
Kwimba	824	1,899	25,555	35,505	26,379	37,404	5.1
Sengerema	858	703	56,706	54,861	57,563	55,565	1.3
Geita	804	1,136	50,433	49,944	51,237	51,080	2.2
Missungwi	1,179	1,323	24,025	26,726	25,204	28,049	4.7
Ilemela	1,027	926	9,851	7,900	10,878	8,826	10.5
Total	5,820	6,887	229,082	234,042	234,901	240,929	2.9

7.2g ANNUAL CROP AND VEGETABLE PRODUCTION: Number of Crop Growing Households and Planted Area By Improved Seed Use and District During 2002/03 Crop Year - Long SEASON

District	Improved Seed Use						% of planted area under Improved Seed use in Long season
	Households Using Improved Seed		Households Not Using Improved Seed		Total		
	Number of Household	Planted Area	Number of Household	Planted Area	Number of Household	Planted Area	
Ukerewe	2,073	594	16,906	3,779	18,980	4,373	13.6
Magu	3,467	1,957	9,942	11,180	13,409	13,137	14.9
Kwimba	4,193	12,797	11,258	16,247	15,451	29,044	44.1
Sengerema	3,759	3,608	23,475	13,347	27,234	16,954	21.3
Geita	1,831	1,062	20,531	15,811	22,362	16,873	6.3
Missungwi	2,628	2,872	12,270	15,032	14,898	17,904	16.0
Ilemela	2,296	931	4,896	2,145	7,192	3,077	30.3
Total	20,248	23,821	99,277	77,541	119,525	101,362	23.5
%	17	24	83	76	100	100	

7.2h ANNUAL CROP AND VEGETABLE PRODUCTION: Planted Area and Number of Crop Growing Households During Long Season by Method of Land Clearing and Crops; 2002/03 Agriculture Year

Crop	Land Clearing											
	Mostly Bush Clearance		Mostly Hand Slashing		Mostly Tractor Slashing		Mostly Burning		Not cleared		Total	
	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area	Number of Households	Planted Area
CEREALS		389		46,246		65		828		4,040		51,569
Maize	162	66	17,009	11,937	196	57	0	0	1,539	897	18,710	12,956
Paddy	616	282	44,140	31,164	83	8	905	828	6,594	3,021	52,255	35,303
Sorghum	104	42	4,065	2,237	0	0	0	0	334	122	4,503	2,401
Bulrush Millet	0	0	1,416	908	0	0	0	0	0	0	1,416	908
Finger Millet	0	0	0	0	0	0	0	0	0	0	0	0
ROOTS & TUBERS		263		10,764		0		43		452		11,522
Cassava	0	0	636	201	0	0	0	0	85	11	721	212
Sweet Potatoes	651	196	40,255	10,547	0	0	214	43	1,816	440	42,936	11,227
Irish Potatoes	166	67	167	15	0	0	0	0	0	0	333	83
PULSES		55		2,153		0		0		221		2,430
Mung Beans	0	0	0	0	0	0	0	0	0	0	0	0
Beans	137	55	6,099	1,433	0	0	0	0	699	190	6,935	1,679
Cowpeas	0	0	2,526	435	0	0	0	0	368	31	2,894	467
Green Gram	0	0	1,146	285	0	0	0	0	0	0	1,146	285
Chich Peas	0	0	0	0	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0	0	0	0	0
OIL SEEDS & OIL NUTS		0		521		0		28		17		566
Groundnuts	0	0	1,220	521	0	0	88	28	139	17	1,446	566
Soya Beans	0	0	0	0	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES		36		1,514		0		0		176		1,726
Onions	90	18	567	92	0	0	0	0	0	0	656	110
Cabbage	0	0	965	108	0	0	0	0	160	20	1,125	127
Tomatoes	90	18	4,598	711	0	0	0	0	637	125	5,325	855
Spinnach	0	0	0	471	60	0	0	0	0	0	0	471
Carrot	0	0	302	55	0	0	0	0	0	0	302	55
Chillies	0	0	476	28	0	0	0	0	54	8	531	35
Amaranths	0	0	406	50	0	0	0	0	153	23	559	73
Total		744		61,199		65		900		4,905		67,814
%		1.1		90.2		0.1		1.3		7.2		100

7.2.1 Number of Agricultural Households, Area Planted (ha) and Quantity of Maize Harvested (tons) by Season and District;2002/03 Agricultural Year

Maize											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	8,440	1,375	1,439	1.047	1,436	243	243	1.002	1,617	1,683	1.04
Magu	47,741	36,339	23,358	0.643	4,546	4,073	2,976	0.731	40,412	26,334	0.65
Kwimba	39,698	34,786	12,792	0.368	4,334	4,923	1,832	0.372	39,709	14,625	0.37
Sengerema	61,297	31,158	35,861	1.151	2,721	1,120	1,185	1.058	32,278	37,046	1.15
Geita	89,936	63,683	54,586	0.857	792	399	303	0.758	64,083	54,888	0.86
Missungwi	32,006	25,456	12,706	0.499	2,151	1,219	858	0.704	26,675	13,563	0.51
Ilemela	9,399	2,758	1,863	0.676	2,926	979	802	0.820	3,737	2,666	0.71
Total	288,518	195,556	142,605	0.729	18,906	12,956	8,199	0.633	208,512	150,804	0.72

7.2.2 Number of Agricultural Households, Area Planted (ha) and Quantity of Burlush millet Harvested (tons) by Season and District;2002/03 Agricultural Year

Burlush millet											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	85	9	5	0.534	9	5	0.53
Magu	0	0	0	0.000	0	0	0	0.000	0	0	0.00
Kwimba	0	0	0	0.000	0	0	0	0.000	0	0	0.00
Sengerema	0	0	0	0.000	154	125	46	0.371	125	46	0.37
Geita	0	0	0	0.000	0	0	0	0.000	0	0	0.00
Missungwi	1,238	1,690	509	0.301	1,777	1,748	633	0.362	3,438	1,141	0.33
Ilemela	0	0	0	0.000	0	0	0	0.000	0	0	0.00
Total	1,238	1,690	509	0.301	2,017	1,882	684	0.363	3,572	1,192	0.33

7.2.3 Number of Agricultural Households, Area Planted (ha) and Quantity of Paddy Harvested (tons) by Season and District;2002/03 Agricultural Year

Paddy											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	662	190	210	1.104	5,534	1,078	1,757	1.630	1,268	1,966	1.551
Magu	12,986	6,473	5,240	0.809	2,116	2,353	1,990	0.846	8,826	7,230	0.819
Kwimba	22,645	14,517	8,210	0.566	6,675	6,124	3,391	0.554	20,641	11,601	0.562
Sengerema	7,740	5,351	7,184	1.343	17,318	10,021	13,950	1.392	15,371	21,134	1.375
Geita	18,604	13,709	14,885	1.086	12,390	11,017	14,384	1.306	24,726	29,269	1.184
Missungwi	13,667	11,190	6,766	0.605	4,743	3,675	2,097	0.571	14,865	8,862	0.596
Ilemela	1,680	498	412	0.828	3,560	1,036	1,330	1.285	1,534	1,743	1.136
Total	77,984	51,928	42,906	0.826	52,338	35,303	38,899	1.102	87,231	81,805	0.938

7.2.4 Number of Agricultural Households, Area Planted (ha) and Quantity of Sorghum Harvested (tons) by Season and District;2002/03 Agricultural Year

Sorghum											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	336	47	50	1.054	248	47	16	0.335	94	66	0.697
Magu	6,455	2,842	1,959	0.689	532	147	149	1.014	2,989	2,108	0.705
Kwimba	6,822	2,709	1,257	0.464	727	675	261	0.386	3,384	1,518	0.449
Sengerema	1,204	1,022	714	0.698	1,241	725	720	0.993	1,747	1,434	0.821
Geita	2,871	1,118	1,424	1.274	999	406	201	0.496	1,524	1,625	1.066
Missungwi	4,898	2,710	1,235	0.456	647	354	200	0.565	3,064	1,435	0.468
Ilemela	574	107	59	0.551	109	49	27	0.556	156	86	0.552
Total	23,161	10,556	6,698	0.635	4,503	2,401	1,573	0.655	12,958	8,271	0.638

7.2.5 Number of Agricultural Households, Area Planted (ha) and Quantity of Finger millet Harvested (tons) by Season and District;2002/03 Agricultural Year

Finger millet											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	85	17	41	2.371	82	8	5	0.644	17	41	2.371
Magu	258	131	27	0.207	0	0	0	0.000	131	27	0.207
Kwimba	0	0	0	0.000	0	0	0	0.000	54	16	0.296
Sengerema	0	0	0	0.000	133	54	16	0.296	847	1,171	1.382
Geita	3,793	2,320	1,134	0.489	1,202	847	1,171	1.382	2,320	1,134	0.489
Missungwi	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Ilemela	0	0	0	0.000	0	0	0	0.000	908	1,191	1.311
Total	4,137	2,468	1,202	0.487	1,416	908	1,191	1.311	2,468	1,202	0.487

7.2.6 Number of Agricultural Households, Area Planted (ha) and Quantity of Beans Harvested (tons) by Season and District;2002/03 Agricultural Year

Beans											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	2,850	327	144	0.441	810	101	33	0.325	428	177	0.414
Magu	12,076	2,617	887	0.339	2,678	711	276	0.389	3,328	1,163	0.350
Kwimba	2,208	411	83	0.201	105	13	4	0.329	424	87	0.205
Sengerema	42,814	8,940	3,873	0.433	1,195	245	109	0.445	9,186	3,983	0.434
Geita	56,285	17,038	7,237	0.425	167	17	10	0.593	17,055	7,247	0.425
Missungwi	3,697	921	185	0.201	837	402	173	0.430	1,323	358	0.271
Ilemela	4,938	611	167	0.273	1,143	190	36	0.192	801	203	0.253
Total	124,869	30,865	12,575	0.407	6,935	1,679	642	0.382	32,544	13,217	0.406

7.2.7 Number of Agricultural Households, Area Planted (ha) and Quantity of Green gram Harvested (tons) by Season and District;2002/03 Agricultural Year

Green gram											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0	0	0	0	0.000	0	0	0.000
Magu	6,321	866	402	0.464	139	11	5	0.469	877	407	0.933
Kwimba	12,632	4,694	1,325	0.282	830	256	64	1.000	4,950	1,389	1.282
Sengerema	414	84	22	0.261	0	0	0	0.000	84	22	0.261
Geita	160	6	2	0.247	0	0	0	2.000	6	2	2.247
Missungwi	9,198	2,712	597	0.220	177	18	2	0.100	2,730	599	0.321
Ilemela	460	80	14	0.174	0	0	0	3.000	80	14	3.174
Total	29,184	8,443	2,362	0.280	1,146	285	71	0.249	8,728	2,433	0.529

7.2.9 Number of Agricultural Households, Area Planted (ha) and Quantity of Cowpeas Harvested (tons) by Season and District;2002/03 Agricultural Year

Cowpeas											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	1,145	116	35	0.303	330	35	15	0.420	151	50	0.330
Magu	5,050	659	230	0.349	693	76	22	0.289	734	252	0.343
Kwimba	1,746	326	72	0.221	105	17	1	0.074	343	73	0.214
Sengerema	6,375	1,025	588	0.574	605	205	85	0.414	1,230	673	0.547
Geita	2,183	352	55	0.157	0	0	0	0.000	352	55	0.157
Missungwi	6,243	1,296	279	0.215	267	23	6	0.237	1,320	284	0.215
Ilemela	4,229	604	250	0.414	895	110	21	0.191	715	271	0.379
Total	26,972	4,378	1,509	0.345	2,894	467	149	0.320	4,845	1,658	0.342

7.2.10 Number of Agricultural Households, Area Planted (ha) and Quantity of Bambaranuts Harvested (tons) by Season and District;2002/03 Agricultural Year

Bambaranuts											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	1,314	165	115	0.699	247	46	17	0.380	211	133	0.630
Magu	120	15	7	0.502	0	0	0	0.000	15	7	0.502
Kwimba	516	147	52	0.357	210	42	9	0.217	189	62	0.326
Sengerema	460	53	36	0.668	109	27	2	0.074	80	37	0.470
Geita	888	132	45	0.340	0	0	0	0.000	132	45	0.340
Missungwi	1,315	176	134	0.765	504	65	35	0.539	241	169	0.703
Ilemela	717	82	24	0.292	117	9	0	0.043	92	24	0.266
Total	5,331	769	414	0.538	1,187	190	64	0.339	959	478	0.498

7.2.11 Number of Agricultural Households, Area Planted (ha) and Quantity of Chick peas Harvested (tons) by Season and District;2002/03 Agricultural Year

Chick peas											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	0	0	0	0.0000	0	0	0.0000
Magu	0	0	0	0.000	4,144	5,066	4,373	0.8632	5,066	4,373	0.8632
Kwimba	408	128	141	1.101	6,914	14,373	5,950	0.4140	14,500	6,091	0.4200
Sengerema	0	0	0	0.000	896	915	670	0.7322	915	670	0.7322
Geita	0	0	0	0.000	1,100	1,643	645	0.3924	1,643	645	0.3924
Missungwi	90	29	2	0.062	4,482	7,740	3,452	0.4459	7,769	3,453	0.4445
Ilemela	0	0	0	0.000	0	0	0	0.0000	0	0	0.0000
Total	498	157	142	0.908	17,535	29,738	15,090	0.5074	29,894	15,232	0.5095

7.2.12 Number of Agricultural Households, Area Planted (ha) and Quantity of Cassava Harvested (tons) by Season and District;2002/03 Agricultural Year

Cassava											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	1,140	221	540	2.438	32,294	23,712	37,408	2	23,933	37,948	2
Magu	210	198	25	0.128	22,267	18,881	21,930	1	19,079	21,956	1
Kwimba	0	0	0	0.000	14,546	8,392	17,837	2	8,392	17,837	2
Sengerema	1,057	185	79	0.425	51,560	38,682	76,993	2	38,868	77,072	2
Geita	1,239	784	1,567	1.998	39,498	34,207	30,970	1	34,992	32,538	1
Missungwi	164	40	3	0.087	18,481	10,144	7,860	1	10,185	7,863	1
Ilemela	59	14	24	1.647	10,207	5,761	9,066	2	5,776	9,089	2
Total	3,870	1,443	2,238	1.551	188,853	139,780	202,065	1	141,223	204,303	1

7.2.13 Number of Agricultural Households, Area Planted (ha) and Quantity of Sweet potatoes Harvested (tons) by Season and District;2002/03 Agricultural Year

Sweet potatoes											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	21,705	3,992	7,973	1.997	13,992	2,684	4,218	1.572	6,676	12,191	1.826
Magu	19,187	4,729	5,295	1.120	1,956	513	989	1.927	5,242	6,284	1.199
Kwimba	15,345	4,213	2,950	0.700	2,287	812	524	0.646	5,025	3,474	0.691
Sengerema	17,635	4,379	8,466	1.933	10,085	2,714	4,386	1.616	7,094	12,852	1.812
Geita	9,354	2,512	2,523	1.005	7,103	2,083	2,967	1.424	4,595	5,490	1.195
Missungwi	11,074	2,752	3,056	1.110	5,338	2,014	1,542	0.766	4,766	4,598	0.965
Ilemela	4,773	914	1,507	1.649	2,176	407	696	1.709	1,321	2,203	1.667
Total	99,073	23,491	31,770	1.352	42,936	11,227	15,321	1.365	34,717	47,092	1.356

7.2.14 Number of Agricultural Households, Area Planted (ha) and Quantity of Irish potatoes Harvested (tons) by Season and District;2002/03 Agricultural Year

Irish potatoes											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	167	15	44	2.901	15	44	2.901
Magu	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Sengerema	0	0	134	0.000	0	0	0	0.000	0	0	0.000
Geita	0	0	0	0.000	166	67	33	0.494	67	33	0.494
Missungwi	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Ilemela	59	5	9	0.000	0	0	0	0.000	5	9	1.853
Total	59	5	143	0	333	83	78	3	87	220	2.524

7.2.15 Number of Agricultural Households, Area Planted (ha) and Quantity of Groundnuts Harvested (tons) by Season and District;2002/03 Agricultural Year

Groundnuts											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	85	24	3	0.113	0	0	0	0.000	24	3	0.113
Magu	2,969	584	309	0.530	139	17	22	1.317	601	332	0.552
Kwimba	12,222	5,298	1,748	0.330	729	379	132	0.347	5,677	1,880	0.331
Sengerema	9,881	2,411	2,083	0.864	155	28	15	0.549	2,439	2,099	0.860
Geita	23,723	7,758	4,170	0.537	164	67	0	0.000	7,825	4,170	0.533
Missungwi	8,441	2,249	883	0.392	259	76	10	0.134	2,325	893	0.384
Ilemela	334	42	13	0.296	0	0	0	0.000	42	13	0.296
Total	57,655	18,367	9,208	0.501	1,446	566	180	0.317	18,934	9,388	0.496

7.2.16 Number of Agricultural Households, Area Planted (ha) and Quantity of Sunflower Harvested (tons) by Season and District;2002/03 Agricultural Year

Sunflower											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	0	0	0.000	0.000	0	0	0.000
Magu	0	0	0	0.000	0	0	0.000	0.000	0	0	0.000
Kwimba	0	0	0	0.000	0	0	0.000	0.000	0	0	0.000
Sengerema	0	0	0	0.000	0	0	0.000	0.000	0	0	0.000
Geita	315	66	28	0.430	0	0	0.000	0.000	66	28	0.430
Missungwi	0	0	0	0.000	0	0	0.000	0.000	0	0	0.000
Ilemela	0	0	0	0.000	0	0	0.000	0.000	0	0	0.000
Total	315	66	28	0.430	0	0	0.000	0.000	66	28	0.430

7.2.21 Number of Agricultural Households, Area Planted (ha) and Quantity of Radish Harvested (tons) by Season and District;2002/03 Agricultural Year

Radish											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0	0	0	0	0.000	0	0	0.000
Magu	0	0	0	0	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0	0	0	0	0	0.000	0	0	0.000
Sengerema	0	0	0	0	0	0	0	0.000	0	0	0.000
Geita	0	0	0	0	169	10	68	6.587	10	68	6.587
Missungwi	0	0	0	0	0	0	0	0.000	0	0	0.000
Ilemela	0	0	0	0	0	0	0	0.000	0	0	0.000
Total	0	0	0	0	169	10	68	6.587	10	68	6.587

7.2.22 Number of Agricultural Households, Area Planted (ha) and Quantity of Tumeric Harvested (tons) by Season and District;2002/03 Agricultural Year

Tumeric											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0	0	0	0	0	0	0	0
Magu	0	0	0	0	0	0	0	0	0	0	0
Kwimba	0	0	0	0	0	0	0	0	0	0	0
Sengerema	0	0	0	0	0	0	0	0	0	0	0
Geita	0	0	0	0	0	0	0	0	0	0	0
Missungwi	0	0	0	0	0	0	0	0	0	0	0
Ilemela	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0

7.2.23 Number of Agricultural Households, Area Planted (ha) and Quantity of Onions Harvested (tons) by Season and District;2002/03 Agricultural Year

Onions											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	83	8	2	0.247	8	2	0.247
Magu	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Sengerema	261	39	671	17.067	154	16	61	3.952	55	733	13.350
Geita	802	142	245	1.728	0	0	0	0.000	142	245	1.728
Missungwi	75	15	58	3.804	420	87	602	6.947	102	660	6.479
Ilemela	99	10	24	2.438	0	0	0	0.000	10	24	2.438
Total	1,237	206	998	4.845	656	110	666	6.054	316	1,664	5.266

7.2.24 Number of Agricultural Households, Area Planted (ha) and Quantity of Tomatoes Harvested (tons) by Season and District;2002/03 Agricultural Year

Tomatoes											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	325	38	60	1.594	321	36	148	4.053	74	208	2.801
Magu	489	173	428	2.479	628	100	52	0.521	273	481	1.760
Kwimba	202	61	259	4.253	300	71	463	6.472	132	722	5.451
Sengerema	983	214	1,808	8.434	1,038	221	2,118	9.569	436	3,926	9.011
Geita	747	143	1,188	8.338	840	74	253	3.417	217	1,441	6.654
Missungwi	1,107	265	1,631	6.164	1,015	185	648	3.499	450	2,279	5.066
Ilemela	1,163	154	682	4.435	1,258	181	975	5.391	335	1,657	4.952
Total	5,016	1,047	6,058	5.786	5,400	870	4,657	5.354	1,917	10,714	5.590

7.2.25 Number of Agricultural Households, Area Planted (ha) and Quantity of Spinach Harvested (tons) by Season and District;2002/03 Agricultural Year

Spinach											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Magu	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Sengerema	0	0	0	0.000	133	13	36	2.668	13	36	2.668
Geita	0	0	0	0.000	338	20	134	6.729	20	134	6.729
Missungwi	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Ilemela	153	20	36	1.840	51	10	20	1.976	30	57	1.886
Total	153	20	36	1.840	521.9274735	43.593951	189.8112077	4.354	63	226	3.570

7.2.26 Number of Agricultural Households, Area Planted (ha) and Quantity of Carrot Harvested (tons) by Season and District;2002/03 Agricultural Year

Carrot											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0.000	0.000	0	0	0	0.000	0	0	0.000
Magu	0	0	0.000	0.000	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0.000	0.000	0	0	0	0.000	0	0	0.000
Sengerema	133	40	43.836	1.087	133	40	44	1.087	81	88	1.087
Geita	169	15	6.765	0.449	0	0	0	0.000	15	7	0.449
Missungwi	0	0	0.000	0.000	0	0	0	0.000	0	0	0.000
Ilemela	0	0	0.000	0.000	51	5	22	4.347	5	22	4.347
Total	302	55	50.600	0.913	184	45	66	1.456	101	117	1.158

7.2.27 Number of Agricultural Households, Area Planted (ha) and Quantity of Chillies Harvested (tons) by Season and District;2002/03 Agricultural Year

Chillies											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Magu	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Sengerema	133	54	34	0.630	0	0	0	0.000	54	34	0.630
Geita	85	9	9	0.988	338	14	46	3.335	22	54	2.428
Missungwi	0	0	0	0.000	90	9	4	0.395	9	4	0.395
Ilemela	107	5	27	4.989	103	13	59	4.695	18	86	4.783
Total	325	68	69	1.023	531	35	108	3.066	103	178	1.723

7.2.28 Number of Agricultural Households, Area Planted (ha) and Quantity of Amaranths Harvested (tons) by Season and District;2002/03 Agricultural Year

Amaranths											
District	Short Season				Long Season				Total		
	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Households	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Ukerewe	168	20	52	2.552	83	17	12	0.741	37	64	1.732
Magu	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Kwimba	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Sengerema	261	19	323	17.301	133	13	20	1.482	32	343	10.675
Geita	0	0	0	0.000	0	0	0	0.000	0	0	0.000
Missungwi	0	0	0	0.000	76	8	9	1.186	8	9	1.186
Ilemela	369	30	156	5.167	267	35	132	3.783	65	287	4.425
Total	798	69	530	7.669	559	73	173	2.379	142	704	4.956

PERMANENT CROPS

7.3.1 PERMANENT CROPS: Production of Permanent Crops by Crop Type and District - Mwanza.

District/Crop		Area planted (ha)	Area Harvested (ha)	Quantity Harvested (tons)	Yield (Kgs/ha)
Ukerewe	Palm Oil	31	8	871	114,659
	Coconut	17	16	12	771
	Coffee	97	24	260	10,872
	Sugarcane	7	7	171	24,700
	Banana	215	139	885	6,368
	Mango	252	163	2,920	17,910
	Pawpaw	55	53	289	5,429
	Pineapple	18	17	42	2,447
	Orange	1,010	780	17,522	22,458
	Mandarine/Tangerine	40	38	195	5,132
	Guava	708	22	18	809
	Lime/Lemon	12	13	27	2,178
	Total	2,480	1,280	23,214	18,139
Magu	Pigeon Pea	52	26	16	597
	Sugarcane	12	12	728	60,001
	Mango	9	6	83	13,336
	Total	73	44		
Kwimba	Sour Soup	533	254	1	2
	Banana	59	19	87	4,624
	Mango	53	20	308	15,748
	Orange	16	4	26	6,916
	Mandarine/Tangerine	28	4	23	6,175
	Total	846	321		
Sengerema	Sugarcane	112	18	243	13,173
	Banana	644	393	2,988	7,610
	Mango	695	151	21,055	139,564
	Pawpaw	103	295	711	2,407
	Pineapple	44	44	33	763
	Orange	1,557	195	3,381	17,299
	Lime/Lemon	12	12	89	7,259
	Total	3,197	1,200		
Geita	Sugarcane	89	77	2,526	32,936
	Banana	1,189	841	7,547	8,971
	Mango	5,118	263	23,488	89,326
	Pawpaw	23	14	2,184	161,699
	Pineapple	3,653	73	90	1,234
	Orange	107	12	1,453	123,954
	Total	10,383	1,279		
	Missungwi	Banana	110	68	688
Mango		134	7	3,704	510,611
Pawpaw		18	7	635	90,315
Orange		33	13	116	8,783
Total		390	117		
Ilemela	Sugarcane	151	94	1,431	15,282
	Mshelisheli	3	2	28	11,856
	Banana	48	15	156	10,151
	Mango	97	60	4,537	75,352
	Pawpaw	3	30	120	3,934
	Orange	132	18	238	13,216
	Guava	3	2	93	45,234
	Lime/Lemon	2	9	225	25,954
	Total	451	231		

7.3.2 PERMANENT CROP: Area Planted by Crop Type - Mwanza Region

Crop	Area Planted	%
Mango	6,358	35.68
Orange	2,855	16.02
Banana	2,264.0	12.71
Guava	711	3.99
Total	17,819	100.00

7.3.3 PERMANENT CROPS: Area Planted with Oranges by District

Orange					
District	Area Planted with Orange	Total Area Planted (Ha)	% of Total Area Planted	Households with Orange	Average Planted Area per Household
Ukerewe	1,010	2,480	35.4	9,641	0.1
Magu	0	0	0.0	0	0.0
Kwimba	16	846	0.6	191	0.08
Sengerema	1,557	3,197	54.5	3,197	0.49
Geita	107	10,383	3.7	1,651	0.06
Missungwi	33	390	1.2	248	0.13
Ilemela	132	451	4.6	518	0.25
Total	2,855	17,747	100	15,446	0.18

7.3.4 PERMANENT CROPS: Area planted with Banana by District

Banana					
District	Area Planted with Banana	Total Area Planted (Ha)	% of Total Area Planted	Households with Banana	Average Planted Area per Household
Ukerewe	215	2,480	9.5	3,338.0	0.1
Magu	0.0	0	0.0	0	0.00
Kwimba	59	846	2.6	191.0	0.3
Sengerema	644	3,197	28.4	2,052.0	0.3
Geita	1,189	10,383	52.5	3,839.0	0.3
Missungwi	110	390	4.9	501.0	0.2
Ilemela	48	451	2.1	551.0	0.1
Total	2,265	17,747	100	10,472	0.6

AGROPROCESSING

8.1.1a AGRO PROCESSING: Number of Crop Growing Households Reported to have Processed Products by District; 2002/03 Agriculture Year

	Households That Processed Products		Households That did not Process Products		Total	
	Number	%	Number	%	Number	%
Ukerewe	31,029	94	1,879	6	32,909	100
Magu	50,316	89	6,045	11	56,360	100
Kwimba	43,050	94	2,763	6	45,813	100
Sengerema	63,542	98	1,120	2	64,661	100
Geita	91,814	98	1,472	2	93,286	100
Missungwi	33,111	97	1,022	3	34,132	100
Ilemela	12,403	96	519	4	12,922	100

8.1.1b AGRO PROCESSING: Number of Crop Growing Households by Method of Processing and District; 2002/03 Agricultural Year

District	Method of Processing					Total
	On Farm by Hand	On Farm by Machine	By Neighbour Machine	By Trader	Other	
Ukerewe	24,676	682	5,671	0	0	31,029
Magu	1,735	2,029	45,104	1,448	0	50,316
Kwimba	3,366	1,136	33,513	5,035	0	43,050
Sengerema	2,563	587	55,267	4,698	151	63,265
Geita	4,881	3,088	81,354	2,181	0	91,503
Missungwi	5,541	158	27,330	82	0	33,111
Ilemela	2,684	1,966	6,218	1,485	0	12,352

8.1.1c AGRO PROCESSING: Number of Crop Growing Households Processing Crops During 2002/03 Agricultural Year by Location and Crop, Mwanza Region

Crop	Method of Processing						Total
	On Farm by Hand	On Farm by Machine	By Neighbour Machine	By Trader	On Large Scale Farm	Other	
Maize	24,676	682	5,671	0	0	0	31,029
Paddy	1,735	2,029	45,104	1,448	0	0	50,316
Sorghum	3,366	1,136	33,513	5,035	0	0	43,050
Bulrush Millet	2,563	587	55,267	4,698	0	151	63,265
Cassava	4,881	3,088	81,354	2,181	152	0	91,655
Beans	5,541	158	27,330	82	0	0	33,111
Cowpeas	2,684	1,966	6,218	1,485	0	0	12,352
Bambaranut	45,446	9,644	254,456	14,929	152	151	324,778

8.1.1d AGRO PROCESSING: Number of Crop Growing Households Reporting Processing of Farm Products Produced During 2002/03 Agricultural Year by Use of Product and Crop, Mwanza Region

Crop	Product Use						Total
	Household / Human Consumption	Fuel for Cooking	Sale Only	Animal Consumption	Did Not Use	Other	
Maize	280,597	310	151	69	638	59	281,824
Paddy	111,195	397	1,686	0	727	0	114,005
Sorghum	22,447	90	165	0	0	0	22,702
Bulrush Millet	2,717	0	0	0	0	0	2,717
Finger Millet	1,092	0	269	0	0	0	1,361
Cassava	108,842	478	1,787	0	0	155	111,262
Sweet Potatoes	1,568	83	0	0	0	0	1,651
Beans	812	0	0	0	0	0	812
Cowpeas	298	0	0	0	0	0	298
Green Gram	633	0	0	0	0	0	633
Chick Peas	2,918	0	209	0	0	0	3,127
Simsim	296	0	0	0	0	0	296
Groundnut	2,374	0	209	0	0	0	2,583
Oil Palm	646	0	85	0	0	0	731
Coconut	133	0	0	0	0	0	133
Orange	83	0	0	0	0	0	83

8.1.1e AGRO PROCESSING: Number of Crop Growing Households Reporting Processing of Farm Products Produced During 2002/03 Agricultural Year by Location of Sale of Product and Crop, Mwanza Region

Crop	Where Sold									Total
	Neighbours	Local Market / Trade Store	Secondary Market	Marketing Co-operative	Farmers Association	Large Scale Farm	Trader at Farm	Other	Did not Sell	
Maize	1,239	7,527	0	382	690	550	974	5,376	265,087	281,824
Paddy	2,447	5,255	643	922	510	99	1,868	1,976	100,286	114,005
Sorghum	0	974	89	0	0	165	124	818	20,531	22,702
Bulrush Millet	0	0	0	0	0	0	0	0	2,717	2,717
Finger Millet	264	0	0	0	0	0	0	0	1,097	1,361
Cassava	2,844	5,074	159	0	389	219	1,461	969	100,148	111,262
Sweet Potatoes	0	0	0	0	0	0	0	89	1,563	1,651
Beans	0	167	0	0	0	0	0	0	645	812
Cowpeas	0	0	0	0	0	0	0	0	298	298
Green Gram	105	0	0	0	0	0	0	89	440	633
Chick Peas	0	447	90	0	0	0	0	0	2,591	3,127
Simsim	0	148	0	0	0	0	0	0	148	296
Groundnut	0	505	0	0	0	0	0	89	1,989	2,583
Oil Palm	0	0	0	0	0	0	0	0	731	731
Coconut	0	0	0	0	0	0	0	0	133	133
Orange	0	0	0	0	0	0	0	0	83	83

8.1.1f AGRO PROCESSING: Number of Crop Growing Households By Main Product and District During 2002/03 Agriculture Year, Mwanza Region

District	Main Product						Total
	Flour / Meal	Grain	Oil	Juice	Fiber	Other	
Ukerewe	28,491	2,455	0	83	0	0	31,029
Magu	46,312	3,867	0	137	0	0	50,316
Kwimba	31,697	11,353	0	0	0	0	43,050
Sengerema	58,236	5,306	0	0	0	0	63,542
Geita	86,228	5,431	155	0	0	0	91,814
Missungwi	28,405	4,705	0	0	0	0	33,111
Ilemela	11,146	1,208	48	0	0	0	12,403
Total	290,516	34,326	203	220	0	0	325,265

8.1.1g AGRO PROCESSING: Number of Crop Growing Households By Use of Primary Processed Product and District During 2002/03 Agriculture Year, Mwanza Region

District	Product Use					Total
	Household / Human Consumption	Fuel for Cooking	Sale Only	Animal Consumption	Did Not Use	
Ukerewe	30,547	171	311	0	0	31,029
Magu	49,903	135	0	0	278	50,316
Kwimba	42,328	0	409	0	314	43,050
Sengerema	63,089	0	300	0	154	63,542
Geita	91,323	0	304	0	187	91,814
Missungwi	32,952	90	0	69	0	33,111
Ilemela	12,240	0	59	0	104	12,403
Total	322,381	395	1,382	69	1,037	325,265

8.1.1h AGRO PROCESSING: Number of Crop Growing Households By Where Product Sold and District During 2002/03 Agriculture Year, Mwanza Region

District	Where Sold									Total
	Neighbours	Local Market / Trade Store	Secondary Market	Marketing Co-operative	Farmers Association	Large Scale Farm	Trader at Farm	Other	Did not Sell	
Ukerewe	2,110	244	0	0	83	0	1,117	171	27,305	31,029
Magu	1,142	683	0	0	134	0	364	4,006	43,986	50,316
Kwimba	417	689	312	0	311	99	209	105	40,909	43,050
Sengerema	0	2,088	0	133	153	307	151	0	60,711	63,542
Geita	739	5,005	0	167	332	331	817	707	83,717	91,814
Missungwi	86	503	89	82	0	77	0	978	31,295	33,111
Ilemela	165	192	58	0	0	0	75	162	11,751	12,403
Total	4,659	9,404	460	382	1,012	814	2,732	6,130	299,673	325,265

8.1.1i AGRO PROCESSING: Number of Crop Growing Households By type of By-Product and District During 2002/03 Agriculture Year, Mwanza Region

District	By Product										Total
	Bran	Cake	Husk	Juice	Fiber	Pulp	Oil	Shell	No by-product	Other	
Ukerewe	2,943	0	1,919	0	85	83	147	0	25,853	0	31,029
Magu	2,487	0	9,535	0	0	483	0	278	37,532	0	50,316
Kwimba	4,206	209	19,251	0	0	711	0	523	18,150	0	43,050
Sengerema	1,118	0	20,448	0	0	303	0	0	41,672	0	63,542
Geita	11,236	0	17,717	1,154	163	0	0	133	61,411	0	91,814
Missungwi	2,109	90	13,174	0	0	170	0	0	17,568	0	33,111
Ilemela	1,121	0	3,907	1,602	0	0	0	141	5,633	0	12,403
Total	25,221	298	85,950	2,756	248	1,751	147	1,075	207,819	0	325,265

MARKETING

10.1 MARKETING: Number of Crop Producing Households Reported to have Sold Agricultural Produce by District During 2002/03; Mwanza Region

	Households that Sold		Households that Did not Sell		Total Number of households
	Number	%	Number	%	
Ukerewe	23,124	70.3	9,785	29.7	32,909
Magu	43,178	76.6	13,182	23.4	56,360
Kwimba	28,366	61.9	17,447	38.1	45,813
Sengerema	50,648	78.3	14,014	21.7	64,661
Geita	67,156	72.0	26,131	28.0	93,286
Missungwi	22,882	67.0	11,251	33.0	34,132
Ilemela	7,847	60.7	5,075	39.3	12,922
Total	243,200	71.5	96,884	28.5	340,085

10.2 MARKETING: Number of Households who Reported Main Reasons for Not Selling their Crops by District During 2002/03 Agricultural Year, Mwanza Region

District	Main Reasons for Not Selling Crops								Total
	Price Too Low	Production Insufficient to Sell	Market Too Far	Farmers Association Problems	Co-operative Problems	Trade Union Problems	Government Regulatory Board Problems	Other	
Ukerewe	160	9729	239	0	80	251	0	761	11219
Magu	594	13951	0	0	0	139	260	418	15362
Kwimba	924	19358	208	0	100	0	0	616	21206
Sengerema	307	17605	153	0	0	1200	0	145	19411
Geita	970	30314	167	0	0	0	0	155	31606
Missungwi	420	18523	265	0	0	0	0	161	19369
Ilemela	164	5278	0	0	0	51	0	26	5519
Total	3539	114758	1032	0	180	1641	260	2282	123692

10.3 MARKETING: Proportion of Households who Reported Main Reason for Not Selling Their Crops by District during 2002/03 Agricultural Year, Mwanza Region

District	Main Reasons for Not Selling Crops								Total
	Price Too Low	Production Insufficient to Sell	Market Too Far	Farmers Association Problems	Co-operative Problems	Trade Union Problems	Government Regulatory Board Problems	Other	
Ukerewe	1	87	2	0	1	2	0	7	100
Magu	4	91	0	0	0	1	2	3	100
Kwimba	4	91	1	0	0	0	0	3	100
Sengerema	2	91	1	0	0	6	0	1	100
Geita	3	96	1	0	0	0	0	0	100
Missungwi	2	96	1	0	0	0	0	1	100
Ilemela	3	96	0	0	0	1	0	0	100
Total	3	93	1	0	0	1	0	2	100

IRRIGATION/EROSION CONTROL

11.1 Number and Percent of Households Reporting use of irrigation during 2002/03 Agricultural year by District

	Households Practicing Irrigation		Households not Practicing Irrigation		Total	
	Number of Household	%	Number of Household	%	Number of Household	%
Ukerewe	879	3	32,029	97	32,909	100
Magu	1,121	2	55,240	98	56,360	100
Kwimba	711	2	45,102	98	45,813	100
Sengerema	1,869	3	62,792	97	64,661	100
Geita	4,174	4	89,113	96	93,286	100
Missungwi	2,785	8	31,347	92	34,132	100
Ilemela	3,085	24	9,837	76	12,922	100
Total	14,625	4	325,460	96	340,085	100

11.2 IRRIGATION: Area (ha) of Irrigatable and NON irrigated land by district during 2002/03 agriculture year

District	Irrigatable Area (ha)	Irrigated Land (ha)	%
Ukerewe	173	170	98.2
Magu	305	246	80.8
Kwimba	240	207	86.1
Sengerema	1,477	683	46.2
Geita	2,673	2,648	99.1
Missungwi	745	631	84.7
Ilemela	908	686	75.6
Total	6,521	5,272	80.9

11.3 IRRIGATION: Number of Agriculture Households using irrigation by Source of Irrigation Water by districts during the 2002/03 agricultural Year

District	Source of Irrigation Water							Total
	River	Lake	Dam	Well	Borehole	Canal	Pipe water	
Ukerewe	225	407	0	247	0	0	0	879
Magu	120	369	0	500	0	132	0	1,121
Kwimba	306	105	0	300	0	0	0	711
Sengerema	308	831	155	576	0	0	0	1,869
Geita	1,505	166	153	839	0	1,511	0	4,174
Missungwi	179	308	858	1,203	0	161	76	2,785
Ilemela	438	258	536	1,286	55	512	0	3,085
Total	3,081	2,443	1,701	4,951	55	2,317	76	14,625

11.4 IRRIGATION: Number of Agriculture Households by Method used to obtain water and District during 2002/03 Agricultural Year

District	Method of Obtaining Water				Total
	Gravity	Hand Bucket	Hand Pump	Motor Pump	
Ukerewe	150	730	0	0	879
Magu	0	996	125	0	1,121
Kwimba	210	403	99	0	711
Sengerema	155	1,586	129	0	1,869
Geita	2,513	1,156	505	0	4,174
Missungwi	80	2,548	0	157	2,785
Ilemela	709	2,376	0	0	3,085
Total	3,817	9,795	857	157	14,625

11.5 IRRIGATION: Number of Agriculture Households by Method of Field Application of Irrigation Water and District for the 2002/03 Agricultural Year

District	Method of Application				Total
	Flood	Sprinkler	Water Hose	Bucket / Watering Can	
Ukerewe	150	0	0	730	879
Magu	0	249	0	872	1,121
Kwimba	210	0	99	403	711
Sengerema	0	0	129	1,740	1,869
Geita	2,682	169	335	987	4,174
Missungwi	161	69	162	2,392	2,785
Ilemela	543	52	0	2,490	3,085
Total	3,745	540	725	9,615	14,625

11.6 IRRIGATION: Number of Households with Erosion Control/Water Harvesting Facilities on their Land By District

District	Presence of Erosion Control/Water Harvesting Facilities				Number of Households
	Have Facility		Does Not Have Facility		
	Number	%	Number	%	
Ukerewe	3,222	10	29,687	90	32,909
Magu	13,398	24	42,962	76	56,360
Kwimba	5,278	12	40,535	88	45,813
Sengerema	3,690	6	60,971	94	64,661
Geita	923	1	92,364	99	93,286
Missungwi	1,815	5	32,317	95	34,132
Ilemela	527	4	12,396	96	12,922
Total	28,852	8	311,233	92	340,085

11.7 EROSION CONTROL: Number of Erosion Control/Water Harvesting Structures By Type and District as of 2002/03 Agricultural Year

District	Type of Erosion Control								Total
	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Dam	
Ukerewe	0	74,085	0	83	0	16,849	81	0	91,098
Magu	40,995	267,572	0	0	1,780	230,710	4,065	0	545,123
Kwimba	0	12,011	0	0	103	16,730	4,892	102	33,837
Sengerema	531	15,448	4,918	1,112	2,925	1,825	1,458	797	29,014
Geita	0	1,215	0	167	0	0	0	0	1,381
Missungwi	0	69,169	0	0	0	5,737	0	79	74,985
Ilemela	0	2,527	0	0	0	965	684	0	4,176
Total	41,527	442,027	4,918	1,362	4,808	272,816	11,179	978	779,614

ACCESS TO FARM INPUTS

12.1.1 ACCESS TO INPUTS: Number of Crop Growing Households Using Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Using Chemical Fertilizer		NOT Using Chemical Fertilizer		Total Number of Crop growing households
	No of households	%	No of households	%	
Ukerewe	158	0.5	32,750	99.5	32,909
Magu	873	1.5	55,488	98.5	56,360
Kwimba	398	0.9	45,415	99.1	45,813
Sengerema	2,142	3.3	62,519	96.7	64,661
Geita	2,005	2.1	91,282	97.9	93,286
Missungwi	1,958	5.7	32,174	94.3	34,132
Ilemela	1,926	14.9	10,997	85.1	12,922
Total	9,460	2.8	330,624	97.2	340,085

12.1.2 ACCESS TO INPUTS: Number of Crop Growing Households Using Farm Yard Manure by District during 2002/03 Agricultural Year

District	Using Farm Yard Manure		Not Using Farm Yard Manure		Total Number of Crop growing households
	No of households	%	No of households	%	
Ukerewe	16,575	50	16,334	50	32,909
Magu	18,224	32	38,136	68	56,360
Kwimba	10,773	24	35,040	76	45,813
Sengerema	22,548	35	42,113	65	64,661
Geita	18,098	19	75,467	81	93,566
Missungwi	10,605	31	23,528	69	34,132
Ilemela	6,437	50	6,486	50	12,922
Total	103,260	30	237,104	70	340,364

12.1.3 ACCESS TO INPUTS: Number of Crop Growing Households Using COMPOST Manure by District during 2002/03 Agricultural Year

District	Using Compost		Not Using Compost		Total Number of Crop growing households
	No of households	%	No of households	%	
Ukerewe	2,375	7.2	30,534	92.8	32,909
Magu	2,875	5.1	53,485	94.9	56,360
Kwimba	1,287	2.8	44,526	97.2	45,813
Sengerema	1,667	2.6	62,995	97.4	64,661
Geita	3,284	3.5	89,832	96.5	93,116
Missungwi	407	1.2	33,726	98.8	34,132
Ilemela	1,001	7.7	11,921	92.3	12,922
Total	12,896	3.8	327,019	96.2	339,914

12.1.4 ACCESS TO INPUTS: Number of Crop Growing Households Using Insecticide/Fungicides by District during 2002/03 Agricultural Year

District	Using Insecticides/Fungicide		Not Using Insecticide/Fungi		Total Number of Crop growing households
	No of households	%	No of households	%	
Ukerewe	491	1	32,418	99	32,909
Magu	14,986	27	41,375	73	56,360
Kwimba	1,750	4	44,063	96	45,813
Sengerema	11,457	18	53,205	82	64,661
Geita	21,230	23	71,948	77	93,178
Missungwi	4,775	14	29,357	86	34,132
Ilemela	2,572	20	10,350	80	12,922
Total	57,260	17	282,716	83	339,976

12.1.5 ACCESS TO INPUTS: Number of Crop Growing Households Using Herbicides by District during 2002/03 Agricultural Year

District	Using Herbicides		Not Using Herbicides		Total Number of Crop growing households
	No of households	%	No of households	%	
Ukerewe	0	0	32,909	100	32,909
Magu	278	0	56,083	100	56,360
Kwimba	0	0	45,813	100	45,813
Sengerema	306	0	64,356	100	64,661
Geita	252	0	93,035	100	93,286
Missungwi	176	1	33,957	99	34,132
Ilemela	43	0	12,879	100	12,922
Total	1,054	0	339,031	100	340,085

12.1.6 ACCESS TO INPUTS: Number of Crop Growing Households using Improved Seeds by District during 2002/03 Agricultural Year

District	Using Improved Seeds		Not Using Improved Seeds		Total Number of Crop growing households
	No of households	%	No of households	%	
Ukerewe	3,639	11	29,270	89	32,909
Magu	34,228	61	22,133	39	56,360
Kwimba	12,752	28	33,061	72	45,813
Sengerema	26,873	42	37,788	58	64,661
Geita	32,372	35	60,915	65	93,286
Missungwi	11,577	34	22,556	66	34,132
Ilemela	6,542	51	6,381	49	12,922
Total	127,982	38	212,102	62	340,085

12.1.7 ACCESS TO INPUTS: Number of Agricultural Households by Source of Chemical Fertilizer and District, 2002/03 Agricultural Year

District	Local Market / Trade Store		Local Farmers		Neighbour		Not applicable		Total
	Number	%	Number	%	Number	%	Number	%	
Ukerewe	158	0.5	0	0.0	0	0.0	32,750	99.5	32,909
Magu	873	1.5	0	0.0	0	0.0	55,488	98.5	56,360
Kwimba	398	0.9	0	0.0	0	0.0	45,415	99.1	45,813
Sengerema	2,142	3.3	0	0.0	0	0.0	62,519	96.7	64,661
Geita	1,869	2.0	136	0.1	0	0.0	91,282	97.9	93,286
Missungwi	1,958	5.7	0	0.0	0	0.0	32,174	94.3	34,132
Ilemela	1,926	14.9	0	0.0	0	0.0	10,997	85.1	12,922
Total	9,324	2.7	136	0.04	0	0.00	330,624	97.2	340,085

12.1.8 ACCESS TO INPUTS: Number of Agricultural Households by Source of Farm Yard Manure and District, 2002/03 Agricultural Year

District	Co-operative		Local Farmers Group		Local Market / Trade Store		Secondary Market		Development Project		Crop Buyers	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	158	0.5	0	0.0	155	0.5	0	0.0	0	0.0	166	0.5
Magu	276	0.5	0	0.0	681	1.2	124	0.2	0	0.0	0	0.0
Kwimba	0	0.0	0	0.0	0	0.0	0	0.0	98	0.2	0	0.0
Sengerema	152	0.2	153	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Geita	681	0.7	0	0.0	319	0.3	0	0.0	0	0.0	0	0.0
Missungwi	0	0.0	246	0.7	75	0.2	0	0.0	0	0.0	0	0.0
Ilemela	59	0.5	0	0.0	336	2.6	0	0.0	59	0.5	0	0.0
Total	1,325	0.4	399	0.1	1,566	0.5	124	0.0	156	0.0	166	0.0

cont..... Number of Agricultural Households by Source of Farm Yard Manure and District, 2002/03 Agricultural Year

District	Large Scale Farm		Locally Produced by		Neighbour		Other		Not applicable		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	0	0.0	13,868	42.1	2,227	6.8	0	0.0	16,334	49.6	32,909
Magu	686	1.2	7,149	12.7	9,308	16.5	0	0.0	38,136	67.7	56,360
Kwimba	0	0.0	5,833	12.7	4,842	10.6	0	0.0	35,040	76.5	45,813
Sengerema	0	0.0	13,857	21.4	8,387	13.0	0	0.0	42,113	65.1	64,661
Geita	0	0.0	9,160	9.8	7,603	8.1	335	0.4	75,467	80.7	93,566
Missungwi	0	0.0	6,498	19.0	3,786	11.1	0	0.0	23,528	68.9	34,132
Ilemela	0	0.0	2,685	20.8	3,299	25.5	0	0.0	6,486	50.2	12,922
Total	686	0.2	59,051	17.3	39,453	11.6	335	0.1	237,104	69.7	340,364

12.1.9 ACCESS TO INPUTS: Number of Agricultural Households and Source of COMPOST Manure by District, 2002/03 Agricultural Year

District	Co-operative		Crop Buyers		Locally Produced by Household		Neighbour		Not applicable		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	0	0.0	0	0.0	1,715	5.2	577	1.8	30,534	92.8	32,826
Magu	666	1.2	111	0.2	1,711	3.0	0	0.0	53,485	94.9	55,973
Kwimba	0	0.0	0	0.0	1,287	2.8	0	0.0	44,526	97.2	45,813
Sengerema	0	0.0	0	0.0	1,230	1.9	436	0.7	62,995	97.4	64,661
Geita	0	0.0	0	0.0	1,363	1.5	1,813	1.9	89,832	96.5	93,007
Missungwi	0	0.0	0	0.0	330	1.0	76	0.2	33,726	98.8	34,132
Ilemela	0	0.0	59	0.5	782	6.1	0	0.0	11,921	92.3	12,762
Total	666	0.2	170	0.0	8,419	2.5	2,902	0.9	327,019	96.2	339,176

12.1.10 ACCESS TO INPUTS: Number of Agricultural Households and Source of Insecticides/Fungicides by District, 2002/03 Agricultural Year

District	Local Market / Trade Store		Secondary Market		Development Project		Neighbour		Not applicable		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	491	1.5	0	0.0	0	0.0	0	0.0	32,418	98.5	32,908.7
Magu	7,261	12.9	139	0.2	139	0.2	124	0.2	41,375	73.4	49,037.0
Kwimba	917	2.0	0	0.0	0	0.0	104	0.2	44,063	96.2	45,083.9
Sengerema	9,291	14.4	309	0.5	0	0.0	0	0.0	53,205	82.3	62,804.6
Geita	7,960	8.5	0	0.0	0	0.0	168	0.2	71,948	77.2	80,076.5
Missungwi	3,147	9.2	0	0.0	0	0.0	0	0.0	29,357	86.0	32,504.2
Ilemela	2,529	19.6	0	0.0	0	0.0	0	0.0	10,350	80.1	12,879.3
Total	31,595	9.3	448	0.1	139	0.0	397	0.1	282,716	83.2	315,294.2

12.1.11 ACCESS TO INPUTS: Number of Agricultural Households by Source of Herbicides and District, 2002/03 Agricultural Year

District	Local Market / Trade Store		Neighbour		Not applicable		Total
	Number	%	Number	%	Number	%	
Ukerewe	0	0.0	0	0.0	32,909	100.0	32,908.7
Magu	0	0.0	0	0.0	56,083	99.5	56,082.6
Kwimba	0	0.0	0	0.0	45,813	100.0	45,812.9
Sengerema	151	0.2	155	0.2	64,356	99.5	64,661.4
Geita	252	0.3	0	0.0	93,035	99.7	93,286.5
Missungwi	176	0.5	0	0.0	33,957	99.5	34,132.3
Ilemela	43	0.3	0	0.0	12,879	99.7	12,922.4
Total	622	0.2	155	0.0	339,031	99.7	339,806.9

12.1.12 ACCESS TO INPUTS: Number of Agricultural Households Source of Improved Seeds by District, 2002/03 Agricultural Year

District	Local Farmers Group		Local Market / Trade Store		Secondary Market		Development Project		Crop Buyers		Large Scale Farm		Locally Produced by Household		Neighbour		Not applicable		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	0	0.0	3,316	10.1	0	0.0	72	0.2	0	0.0	0	0.0	83	0.3	169	0.5	29,270	88.9	32,909
Magu	1,058	1.9	8,590	15.2	138	0.2	2,083	3.7	10,419	18.5	0	0.0	1,662	2.9	1,055	1.9	22,133	39.3	47,138
Kwimba	0	0.0	2,637	5.8	0	0.0	103	0.2	6,213	13.6	0	0.0	105	0.2	1,463	3.2	33,061	72.2	43,581
Sengerema	1,012	1.6	18,399	28.5	153	0.2	0	0.0	282	0.4	0	0.0	147	0.2	1,830	2.8	37,788	58.4	59,612
Geita	492	0.5	10,690	11.5	0	0.0	167	0.2	10,767	11.5	0	0.0	167	0.2	1,514	1.6	60,915	65.3	84,711
Missungwi	164	0.5	7,221	21.2	258	0.8	76	0.2	506	1.5	347	1.0	84	0.2	160	0.5	22,556	66.1	31,372
Ilemela	0	0.0	5,831	45.1	0	0.0	0	0.0	171	1.3	0	0.0	144	1.1	336	2.6	6,381	49.4	12,864
Total	2,726	0.8	56,683	16.7	549	0.2	2,501	0.7	28,358	8.3	347	0.1	2,393	0.7	6,526	1.9	212,102	62.4	312,185

12.1.13 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total Number
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	0	0	0	0	0	0	83	53	75	47	158
Magu	0	0	385	44	120	14	367	42	0	0	873
Kwimba	0	0	93	23	104	26	103	26	99	25	398
Sengerema	415	19	133	6	860	40	302	14	433	20	2,142
Geita	164	8	136	7	908	45	133	7	664	33	2,005
Missungwi	139	7	787	40	344	18	352	18	337	17	1,958
Ilemela	320	17	430	22	334	17	438	23	405	21	1,926
Total	1,038	11	1,963	21	2,669	28	1,778	19	2,012	21	9,460

12.1.14 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	16,157	97	418	3	0	0	0	0	0	0	16,575
Magu	15,539	85	2,425	13	260	1	0	0	0	0	18,224
Kwimba	9,588	89	792	7	92	1	301	3	0	0	10,773
Sengerema	18,741	83	2,979	13	567	3	155	1	106	0	22,548
Geita	15,693	87	1,847	10	392	2	0	0	167	1	18,098
Missungwi	9,459	89	982	9	164	2	0	0	0	0	10,605
Ilemela	4,988	77	1,162	18	174	3	112	2	0	0	6,437
Total	90,165	87	10,605	10	1,649	2	568	1	273	0	103,260

12.1.15 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of COMPOST Manure by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 10 and 20 km		Total Number
	Number	%	Number	%	
Ukerewe	2,061	86.8	0	0	2,061
Magu	2,606	90.6	0	0.0	2,605.8
Kwimba	1,183	91.9	0	0.0	1,183.1
Sengerema	1,386	83.2	155	9.3	1,541.0
Geita	3,284	100.0	0	0.0	3,284.4
Missungwi	329	81.0	0	0.0	329.3
Ilemela	841	84.0	53	5.3	894.0
Total	11,690	90.7	208	1.6	11,898.2

12.1.16 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Improved Seeds by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total Number
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	252	7	155	4	846	23	2,168	60	218	6	3,639
Magu	15,517	45	9,426	28	5,229	15	3,024	9	1,032	3	34,228
Kwimba	3,726	29	5,938	47	1,648	13	715	6	725	6	12,752
Sengerema	7,571	28	6,137	23	6,127	23	3,051	11	3,987	15	26,873
Geita	12,149	38	8,690	27	4,845	15	2,627	8	4,060	13	32,372
Missungwi	2,596	22	4,836	42	2,229	19	771	7	1,145	10	11,577
Ilemela	876	13	1,460	22	1,348	21	1,433	22	1,425	22	6,542
Total	42,687	33	36,642	29	22,273	17	13,790	11	12,591	10	127,982

12.1.17 ACCESS TO INPUTS: Number of Agricultural Households and Distance to Source of Insecticide/Fungicides by District, 2002/03 Agricultural Year

District	Less than 1 km		Between 1 and 3 km		Between 3 and 10 km		Between 10 and 20 km		20 km and Above		Total Number
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	0	0	0	0	168	34	83	17	240	49	491
Magu	4,803	32	4,825	32	2,609	17	1,586	11	1,162	8	14,986
Kwimba	313	18	717	41	207	12	206	12	308	18	1,750
Sengerema	1,297	11	2,860	25	3,903	34	1,827	16	1,570	14	11,457
Geita	8,023	38	5,688	27	3,959	19	1,463	7	2,097	10	21,230
Missungwi	936	20	1,858	39	1,361	28	441	9	179	4	4,775
Ilemela	382	15	719	28	475	18	532	21	463	18	2,572
Total	15,754	28	16,667	29	12,681	22	6,138	11	6,020	11	57,260

12.1.18 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	7,502	23	22,085	67	418	1	0	0	1,065	3	1,107	3	0	0	574	2	32,750
Magu	18,390	33	32,894	59	494	1	265	0	1,475	3	1,626	3	0	0	345	1	55,488
Kwimba	17,739	39	24,093	53	277	1	0	0	2,580	6	621	1	105	0	0	0	45,415
Sengerema	15,155	24	43,320	69	287	0	303	0	1,355	2	1,950	3	0	0	149	0	62,519
Geita	23,641	26	63,937	70	876	1	0	0	951	1	1,876	2	0	0	0	0	91,282
Missungwi	7,664	24	19,943	62	480	1	142	0	2,389	7	1,467	5	0	0	89	0	32,174
Ilemela	578	5	9,508	86	106	1	57	1	189	2	457	4	0	0	102	1	10,997
Total	90,668	27	215,779	65	2,938	1	767	0	10,004	3	9,104	3	105	0	1,259	0	330,624

12.1.19 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Farm Yard Manure by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	7,502	23	22,085	67	418	1	0	0	1,065	3	1,107	3	0	0	574	2	32,750
Magu	18,390	33	32,894	59	494	1	265	0	1,475	3	1,626	3	0	0	345	1	55,488
Kwimba	17,739	39	24,093	53	277	1	0	0	2,580	6	621	1	105	0	0	0	45,415
Sengerema	15,155	24	43,320	69	287	0	303	0	1,355	2	1,950	3	0	0	149	0	62,519
Geita	23,641	26	63,937	70	876	1	0	0	951	1	1,876	2	0	0	0	0	91,282
Missungwi	7,664	24	19,943	62	480	1	142	0	2,389	7	1,467	5	0	0	89	0	32,174
Ilemela	578	5	9,508	86	106	1	57	1	189	2	457	4	0	0	102	1	10,997
Total	90,668	27	215,779	65	2,938	1	767	0	10,004	3	9,104	3	105	0	1,259	0	330,624

12.1.20 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using COMPOST Manure by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	4,508	15	3,584	12	14,874	49	2,163	7	1,807	6	2,761	9	167	1	670	2	30,534
Magu	1,751	3	3,902	7	18,389	34	8,197	15	18,321	34	2,435	5	138	0	352	1	53,485
Kwimba	3,531	8	4,696	11	17,091	38	3,407	8	13,745	31	1,449	3	209	0	396	1	44,526
Sengerema	2,936	5	4,325	7	32,364	51	2,626	4	15,480	25	4,671	7	445	1	149	0	62,995
Geita	6,527	7	12,776	14	35,341	39	3,153	4	29,316	33	1,719	2	170	0	830	1	89,832
Missungwi	3,621	11	1,389	4	9,783	29	928	3	15,818	47	1,945	6	0	0	241	1	33,726
Ilemela	1,542	13	1,211	10	6,228	52	368	3	1,861	16	627	5	83	1	0	0	11,921
Total	24,416	7	31,883	10	134,070	41	20,842	6	96,348	29	15,609	5	1,212	0	2,639	1	327,019

12.1.21 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Insecticides/Fungicides by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	6,184	19	23,165	71	572	2	0	0	886	3	1,111	3	0	0	499	2	32,418
Magu	2,488	6	31,405	76	675	2	80	0	1,976	5	4,400	11	0	0	349	1	41,375
Kwimba	10,022	23	26,187	59	783	2	312	1	3,948	9	2,811	6	0	0	0	0	44,063
Sengerema	7,271	14	39,891	75	590	1	152	0	3,118	6	2,035	4	0	0	149	0	53,205
Geita	7,528	10	57,462	80	1,414	2	482	1	1,428	2	3,464	5	0	0	170	0	71,948
Missungwi	5,723	19	17,107	58	317	1	0	0	3,859	13	2,270	8	0	0	80	0	29,357
Ilemela	400	4	8,625	83	289	3	43	0	439	4	554	5	0	0	0	0	10,350
Total	39,616	14	203,842	72	4,641	2	1,069	0	15,654	6	16,646	6	0	0	1,248	0	282,716

12.1.22 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Herbicides by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	5,789	17.6	21,168	64.3	649	2.0	0	0.0	3,853	12	951	3	499	2	32,909
Magu	10,514	18.7	26,454	47.2	1,674	3.0	0	0.0	10,129	18	7,075	13	237	0	56,083
Kwimba	11,282	24.6	21,708	47.4	862	1.9	207	0.5	8,638	19	3,115	7	0	0	45,813
Sengerema	11,510	17.9	38,843	60.4	955	1.5	285	0.4	7,527	12	5,087	8	149	0	64,356
Geita	26,193	28.2	49,827	53.6	2,081	2.2	0	0.0	9,993	11	4,529	5	159	0	93,035
Missungwi	6,039	17.8	20,666	60.9	223	0.7	90	0.3	4,296	13	2,563	8	80	0	33,957
Ilemela	1,098	8.5	9,277	72.0	153	1.2	43	0.3	1,324	10	931	7	0	0	12,879
Total	72,425	21.4	187,944	55.4	6,597	1.9	624	0	45,760	13	24,249	7	1,124	0	339,031

12.1.23 ACCESS TO INPUTS: Number of Agricultural Households and Reason for NOT using Improved Seeds by District, 2002/03 Agricultural Year

District	Not Available		Price Too High		No Money to Buy		Too Much Labour Required		Do not Know How to Use		Input is of No Use		Locally Produced by Household		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	10,088	34	17,239	59	567	2	0	0	150	1	646	2	0	0	580	2	29,270
Magu	8,123	37	12,833	58	343	2	138	1	0	0	583	3	0	0	113	1	22,133
Kwimba	9,611	29	22,158	67	470	1	102	0	616	2	104	0	0	0	0	0	33,061
Sengerema	7,790	21	28,231	75	0	0	303	1	1,315	3	0	0	0	0	149	0	37,788
Geita	7,281	12	51,859	85	789	1	0	0	284	0	551	1	151	0	0	0	60,915
Missungwi	7,909	35	13,493	60	82	0	61	0	61	0	862	4	88	0	0	0	22,556
Ilemela	518	8	5,437	85	43	1	0	0	101	2	282	4	0	0	0	0	6,381
Total	51,319	24	151,250	71	2,294	1	605	0	2,526	1	3,029	1	238	0	841	0	212,102

12.1.24 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Chemical Fertilizer by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Total
	Number	%	Number	%	Number	%	
Ukerewe	83	53	75	47	0	0	158
Magu	240	27	633	73	0	0	873
Kwimba	103	26	191	48	104	26	398
Sengerema	886	41	839	39	418	20	2,142
Geita	324	16	1,681	84	0	0	2,005
Missungwi	1,396	71	474	24	0	0	1,870
Ilemela	250	13	1,405	73	271	14	1,926
Total	3,281	35	5,298	56	793	8	9,372

12.1.25 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Farm Yard Manure by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Does not Work		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	3,363	20	11,644	70	1,567	9	0	0	0	0	16,575
Magu	5,908	32	11,138	61	1,179	6	0	0	0	0	18,224
Kwimba	4,872	45	5,227	49	674	6	0	0	0	0	10,773
Sengerema	8,442	38	13,214	59	738	3	0	0	0	0	22,393
Geita	8,023	44	8,087	45	1,989	11	0	0	0	0	18,098
Missungwi	6,744	64	3,183	30	677	6	0	0	0	0	10,605
Ilemela	2,211	34	3,957	61	269	4	0	0	0	0	6,437
Total	39,563	38	56,449	55	7,093	7	0	0	0	0	103,105

12.1.26 ACCESS TO INPUTS: Number of Agricultural Households and Quality of COMPOST Manure by District, 2002/03

District	Excellent		Good		Average		Poor		Total
	Number	%	Number	%	Number	%	Number	%	
Ukerewe	250	11	1,808	76	317	13	0	0	2,375
Magu	979	34	1,653	57	243	8	0	0	2,875
Kwimba	0	0	1,188	92	99	8	0	0	1,287
Sengerema	568	34	825	50	126	8	148	9	1,667
Geita	153	5	2,697	82	434	13	0	0	3,284
Missungwi	0	0	407	100	0	0	0	0	407
Ilemela	83	8	635	63	282	28	0	0	1,001
Total	2,033	16	9,214	71	1,501	12	148	1	12,896

12.1.27 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Insecticides/Fungicides by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Poor		Does not Work		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	85	17	405	83	0	0	0	0	0	0	491
Magu	2,630	18	10,566	71	1,666	11	124	1	0	0	14,986
Kwimba	418	24	1,124	64	208	12	0	0	0	0	1,750
Sengerema	2,711	24	7,918	69	827	7	0	0	0	0	11,457
Geita	4,672	22	12,942	61	3,283	15	332	2	0	0	21,230
Missungwi	2,766	58	1,843	39	76	2	0	0	90	2	4,775
Ilemela	402	16	1,877	73	293	11	0	0	0	0	2,572
Total	13,685	24	36,676	64	6,354	11	456	1	90	0	57,260

12.1.28 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Herbicides by District, 2002/03 Agricultural Year

District	Excellent		Good		Total
	Number	%	Number	%	
Ukerewe	0	0	0	0	0
Magu	0	0	139	50	139
Kwimba	0	0	306	100	306
Sengerema	0	0	85	34	85
Geita	176	100	0	0	176
Missungwi	0	0	43	100	43
Ilemela	176	17	573	54	749
Total	176	17	573	54	749

12.1.29 ACCESS TO INPUTS: Number of Agricultural Households and Quality of Improved Seeds by District, 2002/03 Agricultural Year

District	Excellent		Good		Average		Does not Work		Total
	Number	%	Number	%	Number	%	Number	%	
Ukerewe	223	6	2,753	76	663	18	0	0	3,639
Magu	3,087	9	24,700	72	3,767	11	2,674	8	34,228
Kwimba	4,303	34	6,894	54	1,242	10	313	2	12,752
Sengerema	7,361	27	16,863	63	2,380	9	269	1	26,873
Geita	6,820	21	16,373	51	8,064	25	1,115	3	32,372
Missungwi	5,113	44	5,875	51	589	5	0	0	11,577
Ilemela	1,655	25	4,234	65	653	10	0	0	6,542
Total	28,562	22	77,691	61	17,358	14	4,372	3	127,982

12.1.30 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Chemical Fertilizer Next Year by District, 2002/03 Agricultural Year

District	Agricultural Households With Plan to use Chemical Fertilizers Next Year		Agricultural Households With NO Plan to use Next Year Chemical Fertilizers		Total
	Number	%	Number	%	
Ukerewe	3,462	11	29,447	89	32,909
Magu	13,108	23	43,252	77	56,360
Kwimba	5,060	11	40,753	89	45,813
Sengerema	17,432	27	47,229	73	64,661
Geita	18,238	20	75,048	80	93,286
Missungwi	6,177	18	27,956	82	34,132
Ilemela	4,738	37	8,185	63	12,922
Total	68,215	20	271,869	80	340,085

12.1.31 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Farm Yard Manure Next Year by District, 2002/03 Agricultural Year

District	Agricultural Households With Plan to use Next Year Farm Yard Manure		Agricultural Households With NO Plan to use Next Year Farm Yard Manure		Total
	Number	%	Number	%	
Ukerewe	24,160	73	8,749	27	32,909
Magu	38,697	69	17,663	31	56,360
Kwimba	30,373	66	15,440	34	45,813
Sengerema	46,681	72	17,980	28	64,661
Geita	41,043	44	52,523	56	93,566
Missungwi	17,651	52	16,481	48	34,132
Ilemela	9,720	75	3,202	25	12,922
Total	208,324	61	132,039	39	340,364

12.1.32 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use COMPOST Manure Next Year by District, 2002/03 Agricultural Year

District	Agricultural Households With Plan to use COMPOST Manure Next Year		Agricultural Households With NO Plan to use COMPOST Manure Next Year		Total
	Number	%	Number	%	
Ukerewe	9,911	30	22,998	70	32,909
Magu	11,332	20	45,029	80	56,360
Kwimba	5,430	12	40,383	88	45,813
Sengerema	18,677	29	45,984	71	64,661
Geita	10,006	11	83,110	89	93,116
Missungwi	3,302	10	30,830	90	34,132
Ilemela	1,239	10	11,683	90	12,922
Total	59,898	18	280,016	82	339,914

12.1.33 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Insecticides/Fungicides Next Year by District, 2002/03 Agricultural Year

District	Agricultural Households With Plan to use Pesticides/Fungicides Next Year		Agricultural Households With NO Plan to use Pesticides/Fungicides Next Year		Total
	Number	%	Number	%	
Ukerewe	2,815	9	30,094	91	32,909
Magu	29,720	53	26,640	47	56,360
Kwimba	8,758	19	37,055	81	45,813
Sengerema	26,408	41	38,253	59	64,661
Geita	36,759	39	56,419	61	93,178
Missungwi	8,526	25	25,606	75	34,132
Ilemela	4,055	31	8,867	69	12,922
Total	117,042	34	222,934	66	339,976

12.1.34 ACCESS TO INPUTS: Number of Agricultural Households With Plan to use Herbicides Next Year by District, 2002/03 Agricultural Year

District	Agricultural Households With Plan to use Herbicides Next Year		Agricultural Households With NO Plan to use Herbicides Next Year		Total
	Number	%	Number	%	
Ukerewe	949	3	31,959	97	32,909
Magu	6,846	12	49,514	88	56,360
Kwimba	1,108	2	44,705	98	45,813
Sengerema	7,928	12	56,733	88	64,661
Geita	2,306	2	90,981	98	93,286
Missungwi	1,467	4	32,665	96	34,132
Ilemela	201	2	12,722	98	12,922
Total	20,805	6	319,280	94	340,085

12.1.35 ACCESS TO INPUTS: Number of Agricultural Households with Plan to Use Improved Seeds Next Year by District, 2002/03 Agricultural Year

District	Agricultural Households With Plan to use Improved Seeds Next Year		Agricultural Households With NO Plan to use Improved Seeds Next Year		Total
	Number	%	Number	%	
Ukerewe	8,673	26	24,236	74	32,909
Magu	42,500	75	13,860	25	56,360
Kwimba	29,782	65	16,031	35	45,813
Sengerema	45,194	70	19,467	30	64,661
Geita	46,654	50	46,632	50	93,286
Missungwi	16,405	48	17,727	52	34,132
Ilemela	9,545	74	3,377	26	12,922
Total	198,754	58	141,331	42	340,085

AGRICULTURE CREDIT

13.1a AGRICULTURE CREDIT: Number of Agriculture Households receiving Credit by sex of household head and District During the 2002/03 Agriculture Year

District	Male		Female		Total
	Number	%	Number	%	
Ukerewe	0	0	0	0	0
Magu	3,659	71	1,527	29	5,187
Kwimba	920	69	409	31	1,329
Sengerema	761	71	308	29	1,070
Geita	460	100	0	0	460
Missungwi	1,059	86	179	14	1,238
Ilemela	498	70	209	30	707
Total	7,358	74	2,633	26	9,991

13.1b AGRICULTURE CREDIT: Number of Households Receiving Credit By Main Source of Credit and District; 2002/03 Agriculture Year.

District	Source of Credit				Total
	Family, Friend and Relative	Commercial Bank	Saving & Credit Society	Religious Organisation / NGO / Project	
Ukerewe	0	0	0	0	0
Magu	1,275	139	137	2,560	4,110
Kwimba	720	103	0	506	1,329
Sengerema	305	0	310	301	916
Geita	291	0	0	169	460
Missungwi	179	0	0	709	888
Ilemela	494	53	0	107	654
Total	3,262	295	446	4,352	8,356

13.2a AGRICULTURE CREDIT: Number of Households Reporting the Main reasons for Not Using Credit by District During the 2002/03 Agriculture Year

District	Not needed	Not available	Did not want to go into debt	Interest rate/cost too high	Did not know how to get credit	Difficult bureaucracy procedure	Credit granted too late	Other	Don't know about credit	Total
Ukerewe	2,047	5,488	3,497	335	13,038	667	72	83	7,681	32,909
Magu	1,700	14,287	3,509	4,343	12,810	1,169	1,333	61	11,962	51,173
Kwimba	1,241	5,472	6,187	1,051	17,209	614	189	0	12,521	44,484
Sengerema	2,320	7,242	9,008	1,497	24,416	1,283	0	152	17,673	63,592
Geita	2,657	32,809	7,526	1,283	27,736	628	762	0	19,426	92,827
Missungwi	1,459	5,384	5,790	2,086	15,168	80	324	0	2,602	32,894
Ilemela	329	2,253	2,901	386	3,971	664	139	0	1,573	12,215
Total	11,752	72,934	38,419	10,983	114,347	5,106	2,819	296	73,437	330,094

13.2b AGRICULTURE CREDIT: Number of Credits Received by Main Purpose of Credit and District During the 2002/03 Agriculture Year

District	Labour	Seeds	Agro-chemicals	Tools / Equipment	Livestock	Other	Total Credits
Ukerewe	0	0	0	0	0	0	0
Magu	1,904	1,464	536	1,145	539	1,053	6,641
Kwimba	401	101	0	101	0	928	1,530
Sengerema	303	457	155	463	154	0	1,532
Geita	460	169	169	305	0	155	1,258
Missungwi	1,151	0	0	177	264	0	1,592
Ilemela	279	322	220	102	0	0	923
Total	4,498	2,513	1,080	2,292	957	2,136	13,476

TREE FARMING AND AGROFORESTRY

14.1 ON FARM TREE PLANTING: Number of Planted Trees By Species and District During the 2002/03 Agriculture Year, Mwanza Region

District	Senna Spp	Gravellis	Acacia Spp	Pinus Spp	Eucalyptus Spp	Cyprus Spp	Tectona Grandis	Total
Ukerewe	19	82	24	73	55	53	0	306
Magu	297	346	323	0	1,170	0	0	2,136
Kwimba	95	179	12	0	847	28	0	1,161
Sengerema	152	755	4	0	4,117	2,778	20	7,826
Geita	127	251	56	20	26	8	0	488
Missungwi	13	113	20	0	355	32	0	533
Ilemela	217	3,038	.	3	5,448	22	33	8,761
Total	920	4,764	439	96	12,018	2,921	53	21,211
%	4	22	2	0	57	14	0	100

cont... Number of Planted Trees By Species and District During the 2002/03 Agriculture Year, Mwanza Region

District	Terminalia Catapa	Terminalia Ivorensis	Maesopsis Berchemoides	Leucena Spp	Syzzygium Spp	Azadritacht a Spp	Jakaranda Spp	Trichilia Spp	Total
Ukerewe	2	5	1,747	0	9	32	0	10	1,803
Magu	8	2	0	255	1	1,848	0	100	2,206
Kwimba	0	0	0	0	0	801	0	0	801
Sengerema	1	0	2,327	127	0	14	10	0	2,478
Geita	0	0	455	0	0	0	0	600	1,055
Missungwi	0	0	3	30	6	102	0	0	141
Ilemela	15	0	142	1	52	65	0	0	260
Total	26	7	4,674	413	80	2,862	10	710	8,756
%	0.3	0.1	53.4	4.7	0.9	32.7	0.1	8.1	100.0

14.2 ON FARM TREE PLANTING: Number of Households with planted trees on their land and Number of Trees by Planting Location and District During the 2002/03 Agriculture Year, Mwanza Region

	Mostly on Field / Plot Boundaries		Mostly Scattered in Field		Mostly in Plantation / Coppice		Total	
	Number of Households	Number of Trees	Number of Households	Number of Trees	Number of Households	Number of Trees	Number of Households	Number of Trees
Ukerewe	44	370	70	1,669	1	88	115	2,127
Magu	30	906	30	560	15	3,137	75	4,603
Kwimba	25	788	11	554	12	663	48	2,005
Sengerema	32	1,073	32	4,788	6	4,477	70	10,338
Geita	8	64	21	829	3	670	32	1,563
Missungwi	16	118	14	176	8	393	38	687
Ilemela	26	744	24	664	8	7,881	58	9,289
Total	181	4,063	202	9,240	53	17,309	436	30,612

14.3 ON FARM TREE PLANTING: Number of responses by main use of planted trees and District for the 2002/03 agriculture year, Mwanza Region

District	Main Use							Total
	Planks / Timber	Poles	Charcoal	Fuel for Wood	Shade	Medicinal	Other	
Ukerewe	110	7	0	4	2	1	2	126
Magu	67	21	2	47	10	15	1	163
Kwimba	30	11	0	27	10	2	0	80
Sengerema	98	3	2	10	4	2	0	119
Geita	35	2	0	2	1	7	0	47
Missungwi	25	4	0	12	7	2	1	51
Ilemela	60	5	0	24	1	2	1	93
Total	425	53	4	126	35	31	5	679

14.4 ON FARM TREE PLANTING: Number of Agriculture Households Classified by Distance to Community Planted Forest (Km) By District During the 2002/03 Agriculture Year, Mwanza Region

District	Distance to Community Planted Forest (km)						Total
	1-9	1-19	20-29	30-39	40-49	60+	
Ukerewe	829	332	167	0	0	0	1,327
Magu	1,805	3,801	1,797	655	277	138	8,474
Kwimba	4,369	1,140	2,217	1,589	398	105	9,819
Sengerema	1,367	1,375	613	156	0	0	3,511
Geita	0	165	0	0	0	0	165
Missungwi	2,823	3,824	3,199	2,777	247	326	13,197
Ilemela	517	745	268	102	153	102	1,887
Total	11,711	11,382	8,262	5,279	1,076	671	38,379
%	31	30	22	14	3	2	100

14.5 ON FARM TREE PLANTING: Number of responses by Second use of planted trees and District for the 2002/03 agriculture year, Mwanza Region

District	Second Use							Total
	Planks / Timber	Poles	Charcoal	Fuel for Wood	Shade	Medicinal	Other	
Ukerewe	8	27	0	79	7	5	2	128
Magu	23	14	6	80	23	14	3	163
Kwimba	9	18	1	37	4	11	0	80
Sengerema	12	6	0	96	5	0	0	119
Geita	1	11	0	23	5	0	7	47
Missungwi	4	12	0	19	11	3	2	51
Ilemela	7	22	0	55	9	1	0	94
Total	64	110	7	389	64	34	14	682

CROP EXTENSION

15.1 CROP EXTENSION: Number of Agriculture Households Receiving Extension Messages by District During the 2002/03 Agriculture Year, Mwanza Region

	Households Receiving Extension Advice		Households Not Receiving Extension Advice		Total Number of Households
	Number	%	Number	%	
Ukerewe	7,379	22	25,529	78	32,909
Magu	22,455	40	33,906	60	56,360
Kwimba	8,327	18	37,486	82	45,813
Sengerema	9,897	15	54,764	85	64,661
Geita	7,110	8	86,177	92	93,286
Missungwi	7,965	23	26,168	77	34,132
Ilemela	8,389	65	4,533	35	12,922
Total	71,522	21	268,562	79	340,085

15.2 CROP EXTENSION: Number of Households By Quality of Extension Services and District During the 2002/03 Agricultural Year, Mwanza Region

	Very Good		Good		Average		Poor		No Good		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	799	11	4,586	62	1,995	27	0	0	0	0	7,379	100
Magu	2,381	11	16,052	72	3,399	15	359	2	0	0	22,191	100
Kwimba	1,952	23	5,395	65	980	12	0	0	0	0	8,327	100
Sengerema	1,420	14	7,657	77	694	7	126	1	0	0	9,897	100
Geita	2,504	35	3,030	43	1,576	22	0	0	0	0	7,110	100
Missungwi	3,031	38	3,498	44	1,435	18	0	0	0	0	7,965	100
Ilemela	1,284	15	5,181	62	1,722	21	101	1	101	1	8,389	100
Total	13,371	19	45,399	64	11,801	17	587	1	101	0	71,259	100

15.3 EXTENSION MESSAGES: Number of Agriculture Households By Source of Crop Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

	Government		NGO / Development Project		Large Scale Farm		Other		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	6,887	97	164	2	83	1	0	0	0	0	7,134	100
Magu	16,410	74	5,394	24	138	1	0	0	0	0	22,316	100
Kwimba	8,226	99	0	0	0	0	0	0	0	0	8,327	100
Sengerema	9,026	91	0	0	737	7	135	1	0	0	9,897	100
Geita	6,286	90	169	2	507	7	0	0	0	0	6,963	100
Missungwi	7,707	97	258	3	0	0	0	0	0	0	7,965	100
Ilemela	7,190	86	769	9	226	3	0	0	97	1	8,330	100
Total	61,731	87	6,754	10	1,691	2	135	0	97	0	70,932	100

15.4 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Plant Spacing by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Spacing					Total	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable		
Ukerewe	6,324	0	0	0	0	6,324	11
Magu	14,258	2,741	138	0	0	17,137	28
Kwimba	7,940	0	0	0	0	7,940	13
Sengerema	8,571	0	584	135	0	9,289	15
Geita	5,494	169	507	0	0	6,171	10
Missungwi	6,871	176	0	0	0	7,047	12
Ilemela	5,517	604	58	0	48	6,228	10
Total	54,975	3,690	1,287	135	48	60,136	100

15.5 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Agrochemicals by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Use of Agrochemicals					Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Not applicable		
Ukerewe	3,482	0	0	0	0	3,482	10
Magu	10,274	1,080	0	138	0	11,492	32
Kwimba	4,205	185	102	0	0	4,493	12
Sengerema	4,477	0	0	0	0	4,477	12
Geita	3,889	169	0	0	0	4,058	11
Missungwi	3,281	935	0	0	0	4,217	12
Ilemela	2,886	667	0	216	140	3,910	11
Total	32494.43897	3037.2235	101.8443534	354.2820282	140.09703	36,128	100

15.6 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Erosion Control by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Erosion Control					Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other		
Ukerewe	4,799	0	0	83	0	4,882	12
Magu	6,383	8,200	254	134	0	14,972	38
Kwimba	5,746	0	0	0	0	5,746	15
Sengerema	5,416	0	0	433	0	5,849	15
Geita	1,806	0	0	0	0	1,806	5
Missungwi	2,303	330	0	0	0	2,634	7
Ilemela	2,765	606	0	58	257	3,686	9
Total	29,219	9,137	254	708	257	39,575	100

15.7 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Organic Fertilizer Use by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Organic Fertilizer Use							Total Number of Households	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable	Total		
Ukerewe	5,890	164	0	0	0	83	6,137	12,274	11
Magu	11,496	4,582	0	240	0	0	16,317	32,635	29
Kwimba	7,214	86	0	102	0	0	7,402	14,804	13
Sengerema	8,138	0	0	154	135	0	8,427	16,854	15
Geita	4,328	336	168	168	0	0	5,001	10,002	9
Missungwi	6,544	414	0	0	0	0	6,959	13,917	12
Ilemela	5,462	1,163	0	168	0	48	6,841	13,681	12
Total	49,072	6,745	168	832	135	131	57,083	114,166	100

15.8 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Inorganic Fertilizer Use by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Inorganic Fertilizer Use							Total Number of Households	% of total number of households
	Government	NGO / Development	Cooperative	Large Scale	Other	Not applicable	Total		
Ukerewe	2,052	0	0	0	0	85	2,137	4,275	10
Magu	2,197	120	120	111	0	126	2,674	5,348	12
Kwimba	4,215	0	0	0	0	0	4,215	8,429	19
Sengerema	3,374	0	0	0	0	0	3,374	6,747	15
Geita	2,146	336	0	493	0	0	2,974	5,949	14
Missungwi	2,467	510	0	0	0	123	3,100	6,199	14
Ilemela	2,698	494	0	58	58	118	3,427	6,854	16
Total	19,149	1,459	120	662	58	453	21,901	43,802	100

15.9 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Improved Seeds by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Use of Improved Seed						Total Number of Households	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable	Total		
Ukerewe	6,009	83	0	0	0	0	6,093	10
Magu	15,513	2,471	496	498	0	111	19,088	32
Kwimba	6,731	272	102	0	0	0	7,105	12
Sengerema	7,069	0	0	307	135	304	7,815	13
Geita	4,544	169	168	327	0	170	5,378	9
Missungwi	5,898	1,130	82	0	0	0	7,110	12
Ilemela	5,701	661	0	168	0	242	6,771	11
Total	51,464	4,786	848	1,299	135	827	59,360	100

15.10 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Mechanization/LST by Source of Extension Messages and District During the 2002/03 Agriculture Year, Dodoma Region

District	Mechanisation / LST					% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Not applicable	Total	
Ukerewe	485	0	0	0	485	
Magu	2,327	231	235	0	2,793	8
Kwimba	191	93	0	0	284	47
Sengerema	922	0	0	0	922	5
Geita	0	167	0	0	167	15
Missungwi	216	0	0	61	277	3
Ilemela	482	102	58	417	1,059	5
Total	4,622	592	293	479	5,986	18

15.11 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Irrigation Technology by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Irrigation Technology						Total	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable		
Ukerewe	3,137	0	0	0	0	0	3,137	16
Magu	4,158	329	231	244	0	139	5,100	25
Kwimba	3,103	0	0	0	0	201	3,304	16
Sengerema	581	0	0	0	0	0	581	3
Geita	2,119	169	0	158	0	341	2,786	14
Missungwi	1,198	61	0	0	0	0	1,260	6
Ilemela	2,670	807	0	109	58	359	4,004	20
Total	16,966	1,367	231	511	58	1,039	20,171	100

15.12 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Crop Storage by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Crop Storage						Total	% of total number of households
	Government	NGO / Development Project	Cooperative	Large Scale Farm	Other	Not applicable		
Ukerewe	4,379	0	0	0	0	0	4,379	10
Magu	10,123	405	0	124	0	0	10,652	25
Kwimba	6,040	179	0	0	0	0	6,219	15
Sengerema	7,243	0	0	154	135	0	7,532	18
Geita	4,239	0	0	168	0	0	4,408	11
Missungwi	2,963	423	75	0	0	0	3,461	8
Ilemela	4,576	400	48	168	58	58	5,309	13
Total	39,563	1,408	124	614	193	58	41,959	100

15.13 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Vermin Control by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Vermin Control					Total	Total Number of Households	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable			
Ukerewe	3,223	0	0	0	0	0	3,223	12
Magu	5,935	339	489	3,263	248	0	10,273	38
Kwimba	1,965	0	0	0	0	0	1,965	7
Sengerema	4,504	0	0	152	0	0	4,657	17
Geita	1,324	0	0	167	0	170	1,661	6
Missungwi	1,676	250	0	0	0	0	1,926	7
Ilemela	2,310	400	0	0	58	533	3,301	12
Total	20,937	989	489	3,582	306	703	27,005	100

15.14 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Agro-processing by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Agro-progressing					Total	Total Number of Households	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable			
Ukerewe	3,649	0	0	82	0	85	3,816	13
Magu	6,093	273	0	2,544	248	0	9,158	31
Kwimba	599	0	0	0	0	0	599	2
Sengerema	5,404	0	0	152	0	0	5,557	19
Geita	1,300	0	0	335	0	828	2,463	8
Missungwi	1,837	783	82	0	0	0	2,702	9
Ilemela	4,666	268	48	109	58	268	5,419	18
Total	23,550	1,324	130	3,223	306	1,182	29,714	100

15.15 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Agro-processing by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Agro-forestry					Total	% of total number of households
	Government	NGO / Development Project	Large Scale Farm	Other	Not applicable		
Ukerewe	2,900	580	0	0	0	3,480	12
Magu	2,982	10,125	0	0	138	13,246	46
Kwimba	597	578	0	0	0	1,175	4
Sengerema	1,882	0	0	135	0	2,017	7
Geita	1,164	0	0	0	0	1,164	4
Missungwi	1,609	1,051	0	0	0	2,659	9
Ilemela	2,721	1,763	116	58	125	4,783	17
Total	13,855	14,097	116	193	263	28,524	100

15.16 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Bee keeping by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Bee keeping				% of total number of households
	Government	NGO / Development Project	Not applicable	Total	
Ukerewe	0	83	0	83	2
Magu	742	0	0	742	22
Kwimba	0	0	0	0	0
Sengerema	611	154	0	765	23
Geita	0	0	0	0	0
Missungwi	398	269	0	667	20
Ilemela	84	316	718	1,119	33
Total	1,835	822	718	3,376	100

15.17 CROP EXTENSION: Number of Agriculture Households Receiving Advice on Use of Fish Farming by Source of Extension Messages and District During the 2002/03 Agriculture Year, Mwanza Region

District	Fish Farming				% of total number of households
	Government	NGO / Development Project	Not applicable	Total	
Ukerewe	0	0	0	0	0
Magu	518	0	0	518	31
Kwimba	99	0	0	99	6
Sengerema	0	0	0	0	0
Geita	0	0	0	0	0
Missungwi	177	0	0	177	11
Ilemela	0	155	611	766	47
Total	794	239	611	1,643	100

15.18 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Message and District (Part 1) During the 2002/03 Agriculture Year, Mwanza Region

District	Spacing			Use of Agrochemicals			Erosion Control		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Ukerewe	6,324	6,082	1.0	3,313	418	0.1	4,882	1,484	0.3
Magu	17,512	13,703	0.8	11,401	7,674	0.7	14,330	11,440	0.8
Kwimba	7,940	5,019	0.6	4,283	986	0.2	5,746	4,346	0.8
Sengerema	9,134	7,606	0.8	4,630	2,541	0.5	5,695	5,085	0.9
Geita	6,024	5,187	0.9	4,206	2,889	0.7	1,806	1,000	0.6
Missungwi	6,965	6,084	0.9	4,053	1,776	0.4	2,462	1,708	0.7
Ilemela	6,235	5,291	0.8	3,716	2,442	0.7	3,429	1,632	0.5
Total	60,133	48,972	0.8	35,602	18,727	0.5	38,351	26,694	0.7

15.19 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Message and District (Part 2) During the 2002/03 Agriculture Year, Mwanza Region

District	Organic Fertilizer Use			Inorganic Fertilizer Use			Use of Improved Seed		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Ukerewe	6,054	4,734	0.8	2,052	419	0.2	5,942	3,710	0.6
Magu	16,321	11,595	0.7	2,820	1,773	0.6	18,939	15,085	0.8
Kwimba	7,402	4,517	0.6	4,113	703	0.2	7,105	4,037	0.6
Sengerema	8,427	6,306	0.7	3,070	558	0.2	8,123	5,261	0.6
Geita	5,001	2,445	0.5	2,974	1,786	0.6	5,378	3,736	0.7
Missungwi	6,959	5,268	0.8	2,898	1,416	0.5	7,189	5,555	0.8
Ilmela	6,841	4,997	0.7	3,272	2,068	0.6	6,697	5,098	0.8
Total	57,004	39,862	0.7	21,200	8,723	0.4	59,373	42,481	0.7

15.20 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Message and District (Part 3) During the 2002/03 Agriculture Year, Mwanza Region

District	Mechanisation / LST			Irrigation Technology			Crop Storage		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Ukerewe	243	236	1.0	2,888	238	0.1	4,382	3,557	0.8
Magu	2,515	0	0.0	3,764	2,138	0.6	9,891	8,446	0.9
Kwimba	284	99	0.3	3,102	492	0.2	6,210	5,591	0.9
Sengerema	771	0	0.0	430	282	0.7	7,532	7,249	1.0
Geita	167	147	0.9	2,446	1,990	0.8	4,408	4,106	0.9
Missungwi	216	61	0.3	1,335	710	0.5	3,461	3,027	0.9
Ilmela	261	414	1.6	3,360	2,588	0.8	5,250	5,033	1.0
Total	4,456	957	0.2	17,325	8,436	0.5	41,133	37,009	0.9

15.21 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Message and District (Part 4) During the 2002/03 Agriculture Year, Mwanza Region

District	Vermin Control			Agro-progressing			Agro-forestry		
	Received	Adopted	%	Received	Adopted	%	Received	Adopted	%
Ukerewe	3,055	1,051	0.3	3,648	3,319	0.9	3,559	1,397	0.4
Magu	9,879	9,613	1.0	8,184	9,059	1.1	12,730	9,677	0.8
Kwimba	1,965	815	0.4	599	599	1.0	1,175	980	0.8
Sengerema	4,656	4,066	0.9	5,711	5,864	1.0	2,146	1,538	0.7
Geita	992	1,495	1.5	2,123	2,316	1.1	1,480	999	0.7
Missungwi	1,780	1,495	0.8	2,702	1,896	0.7	2,572	1,138	0.4
Ilmela	2,712	2,041	0.8	5,017	4,934	1.0	4,502	3,361	0.7
Total	25,038	20,575	0.8	27,983	27,986	1.0	28,162	19,092	0.7

15.22 CROP EXTENSION: Number of Agriculture Households Receiving and Adopting Extension Messages by Type of Message and District (Part 5) During the 2002/03 Agriculture Year, Mwanza Region

District	Beekeeping			Fish Farming		
	Received	Adopted	%	Received	Adopted	%
Ukerewe	251	0	0	169	0	0
Magu	0	0	0	0	0	0
Kwimba	0	0	0	99	99	0
Sengerema	765	154	0	0	0	0
Geita	0	0	0	0	0	0
Missungwi	358	179	50	90	90	100
Ilemela	400	128	32	96	0	0
Total	1,775	461	26	453	188	41

ANIMAL CONTRIBUTION TO CROP PRODUCTION

17.1 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Number of agriculture households using draft animal to cultivate land by District during 2002/03 agriculture year, Mwanza Region

	Households Using Draft Animals		Household Not Using Draft Animals		Total households
	Number	%	Number	%	
Ukerewe	0	0	32,909	100	32,909
Magu	23,088	41	33,272	59	56,360
Kwimba	31,837	69	13,976	31	45,813
Sengerema	5,899	9	58,763	91	64,661
Geita	16,044	17	77,243	83	93,286
Missungwi	16,838	49	17,294	51	34,132
Ilemela	161	1	12,761	99	12,922
Total	93,867	28	246,218	72	340,085

17.2 ANIMAL CONTRIBUTION TO CROP PRODUCTION: Type of Draft By Number Owned, Used and Area Cultivated (Hectares) By District during 2002/03 agriculture year, Mwanza Region

District	Type of Craft					
	Oxen			Bulls		
	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)
Ukerewe	0	0	0	0	0	0
Magu	68,985	141,016	69,708	3,351	13,320	1,782
Kwimba	21,332	28,873	13,111	6,225	6,820	90
Sengerema	47,898	75,944	32,192	3,915	2,648	716
Geita	52,319	89,023	34,030	1,848	1,962	1,165
Missungwi	16,838	645	208	0	0	0
Total	207,373	335,501	149,249	15,339	24,749	3,754

cont... ANIMAL CONTRIBUTION TO CROP PRODUCTION: Type of Draft By Number Owned, Used and Area Cultivated (Hectares) By District during 2002/03 agriculture year, Mwanza Region

District	Type of Craft								
	Cows			Donkeys			Total		
	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)	Number Owned	Number Used	Area Cultivated (Hectares)
Ukerewe	0	0	0	0	0	0	0	0	0
Magu	7,378	0	0	0	0	0	7,378	0	0
Kwimba	953	105	21	1,662	105	118	2,615	209	140
Sengerema	5,570	5,038	0	0	0	0	5,570	5,038	0
Geita	6,406	2,044	0	0	0	0	6,406	2,044	0
Missungwi	0	0	0	0	0	0	0	0	0
Ilemela	0	0	0	0	0	0	0	0	0
Total	20,307	7,186	21	1,662	105	118	21,969	7,291	140

17.3 ANIMAL CONTRIBUTION TO CROPS: Number of Crop Growing households using organic fertilizer by District during 2002/03 agriculture year, Mwanza

District	Did you apply organic fertilizer during 2002/03?					
	Using Organic Fertilizer		Not Using Organic Fertilizer		Total	
	Number	%	Number	%	Number	%
Ukerewe	16,139	16	16,437	7	32,575	10
Magu	18,005	18	38,221	16	56,226	17
Kwimba	9,907	10	35,709	15	45,616	13
Sengerema	22,517	23	42,145	18	64,661	19
Geita	15,764	16	76,297	32	92,061	27
Missungwi	9,881	10	24,252	10	34,132	10
Ilemela	6,183	6	6,642	3	12,825	4
Total	98,394	100	239,702	100	338,096	100

**17.4 ANIMAL CONTRIBUTION TO CROPS: Area of farm yard manure and Compost
Application by District during 2002/03 agriculture year, Mwanza Region**

District	Farm Yard Manure Area Applied		Compost Area Applied		Total Area applied with Organic Fertilizers	
	Area (Ha)	%	Area (Ha)	%	Area (Ha)	%
Ukerewe	10,216	12	1,396	32	11,612	13
Magu	19,977	23	930	21	20,907	23
Kwimba	9,232	10	114	3	9,346	10
Sengerema	19,886	22	484	11	20,370	22
Geita	16,487	19	996	23	17,483	19
Missungwi	9,565	11	315	7	9,879	11
Ilemela	3,059	3	159	4	3,219	3
Total	88,421	100	4,393	100	92,815	100

CATTLE PRODUCTION

18.1 CATTLE PRODUCTION: Total Number Households rearing Cattle by District during 2002/03 agriculture year, Mwanza Region

District	Households Rearing Cattle		Households Not Rearing Cattle		Total Agriculture households	Total livestock keeping households
	Number	%	Number	%		
Ukerewe	17,422	53	15,487	47	32,909	17,422
Magu	18,008	32	38,353	68	56,360	18,008
Kwimba	17,025	37	28,788	63	45,813	17,025
Sengerema	23,676	37	40,985	63	64,661	23,676
Geita	25,008	27	68,278	73	93,286	25,008
Missungwi	13,370	39	20,763	61	34,132	13,370
Ilemela	3,553	27	9,369	73	12,922	3,553
Total	118,062	35	222,023	65	340,085	118,062

18.2 CATTLE PRODUCTION: Number of Cattle By Type and District as of 1st October, 2003

District	Indigenous			Improved Beef			Improved Dairy			Total Cattle		
	Number of Households	Number of Cattle	%	Number of Households	Number of Cattle	%	Number of Households	Number of Cattle	%	Number of Households	Number of Cattle	%
Ukerewe	17,422	58,301	100	0	0	0.0	0	0	0.00	17,422	58,301	3.4
Magu	18,008	413,906	99	0	0	0.0	809	2,578	0.01	18,008	416,484	24.2
Kwimba	16,932	249,088	99	0	0	0.0	598	2,460	0.01	17,025	251,548	14.6
Sengerema	23,676	305,630	100	0	0	0.0	153	306	0.00	23,676	305,936	17.8
Geita	25,008	407,829	100	0	0	0.0	0	0	0.00	25,008	407,829	23.7
Missungwi	13,155	252,836	99	0	0	0.0	553	1,944	0.01	13,370	254,780	14.8
Ilemela	3,412	22,719	97.5	0	0	0.0	141	594	0.03	3,553	23,313	1.4
Total	117,613	1,710,309	99.5	0	0	0.0	2,254	7,882	0.005	118,062	1,718,190	100.0

18.3 CATTLE PRODUCTION: Number of Households Rearing Cattle, Head of Cattle and Average Head per Household by Herd Size as of 1st October, 2003

Herd Size	Cattle Rearing Households		Heads of Cattle		Average Number Per Household
	Number	%	Number	%	
1-5	45,405	38	133,994	8	3
6-10	26,123	22	205,475	12	8
11-15	14,145	12	183,426	11	13
16-20	9,913	8	176,675	10	18
21-30	8,899	8	225,940	13	25
31-40	4,726	4	164,651	10	35
41-50	3,159	3	144,559	8	46
51-60	2,202	2	123,033	7	56
61-100	2,622	2	206,414	12	79
101-150	416	0	50,524	3	121
151+	451	0	103,500	6	229
Total	118,062	100	1,718,190	100	15

18.4 CATTLE PRODUCTION: Number of Cattle by Category and Type of Cattle; on 1st October 2003

Category of Cattle	Indigenous Cattle		Improved Beef Cattle		Improved Dairy Cattle		Total	
	Number	%	Number	%	Number	%	Number	%
Bulls	192,575	100	0	0	578	0	193,153	11
Cows	575,324	99	0	0	3,774	1	579,098	34
Steers	290,586	100	0	0	819	0	291,405	17
Heifers	307,768	100	0	0	1,523	0	309,291	18
Male Calves	167,020	100	0	0	474	0	167,494	10
Female Calves	177,037	100	0	0	713	0	177,750	10
Total	1,710,309	100	0	0	7,882	0	1,718,190	100

18.5 CATTLE PRODUCTION: Number of Indigenous Cattle By Category and District as on 1st October, 2003

District	Category - Indigenous						Total
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	
Ukerewe	9,294	22,838	75	12,540	6,431	7,122	58,301
Magu	38,203	133,528	88,754	71,123	39,436	42,863	413,906
Kwimba	27,666	75,476	62,213	40,298	21,965	21,470	249,088
Sengerema	40,228	106,188	27,960	55,847	36,607	38,801	305,630
Geita	49,012	147,700	60,716	74,389	36,906	39,105	407,829
Missungwi	25,555	80,221	50,693	48,814	22,854	24,699	252,836
Ilemela	2,618	9,373	174	4,757	2,821	2,977	22,719
Total	192,575	575,324	290,586	307,768	167,020	177,037	1,710,309

18.7 CATTLE PRODUCTION: Number of Improved Dairy Cattle By Category and District as on 1st October, 2003

District	Category - Improved Dairy Cattle						Total
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	
Ukerewe	0	0	0	0	0	0	0
Magu	0	0	0	0	0	0	0
Kwimba	0	0	0	0	0	0	0
Sengerema	0	0	0	0	0	0	0
Geita	0	0	0	0	0	0	0
Missungwi	0	0	0	0	0	0	0
Ilemela	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

18.8 CATTLE PRODUCTION: Number of Cattle By Category and District as on 1st October, 2003

District	Total Cattle						Total
	Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	
Ukerewe	9,294	22,838	75	12,540	6,431	7,122	58,301
Magu	38,471	134,200	89,572	71,941	39,436	42,863	416,484
Kwimba	27,758	77,750	62,213	40,298	22,058	21,470	251,548
Sengerema	40,228	106,188	27,960	55,847	36,607	39,106	305,936
Geita	49,012	147,700	60,716	74,389	36,906	39,105	407,829
Missungwi	25,694	80,857	50,693	49,237	23,192	25,107	254,780
Ilemela	2,696	9,564	174	5,038	2,864	2,977	23,313
Total	193,153	579,098	291,405	309,291	167,494	177,750	1,718,190

GOAT PRODUCTION

19.1 GOAT PRODUCTION: Number of Goats by Type and District as on 1st October, 2003

District	Indigenous			Improved for Meat			Improved Dairy			Total Goat		
	Number of Households	Number of Goats	%	Number of Households	Number of Goats	%	Number of Households	Number of Goats	%	Number of Households	Number of Goats	%
Ukerewe	16,280	59,472	100	0	0	0	0	0	0	16,280	59,472	7
Magu	15,281	146,289	100	124	619	4	0	0	0	15,281	146,908	18
Kwimba	13,699	107,509	100	0	0	0	0	0	0	13,699	107,509	13
Sengerema	26,813	168,935	100	106	106	0	0	0	0	26,813	169,042	20
Geita	35,254	228,731	98	432	3,069	9	166	665	0.3	35,254	232,464	28
Missungwi	12,867	95,249	100	0	0	0	0	0	0	12,867	95,249	11
Ilemela	4,056	19,354	100	0	0	0	0	0	0	4,056	19,354	2
Total	124,250	825,538	99	662	3,794	3	166	665	0.0	124,250	829,997	100

19.2 GOAT PRODUCTION: Number of Households Rearing Goats by Herd Size on 1st October, 2003

Herd Size	Goat Rearing Households		Head of Goats		Average Number Per Household
	Number	%	Number	%	
1-4	57,552	46.3	151,031	18	3
5-9	40,896	32.9	269,263	32	7
10-14	14,906	12.0	167,465	20	11
15-19	5,386	4.3	86,328	10	16
20-24	2,302	1.9	47,776	6	21
25-29	1,380	1.1	35,148	4	25
30-39	1,073	0.9	35,022	4	33
40+	755	0.6	37,965	5	50
Total	124,250	100.0	829,997	100	7

19.3 GOAT PRODUCTION: Number of Goats by Category and Type of Goat as of 1st October, 2003 and District

Category of Goats	Indigenous Goats		Improved Meat Goats		Improved Dairy Goats		Total	
	Number	%	Number	%	Number	%	Number	%
Billy Goat	148,167	99	1,637	1.1	0	0.0	149,804	18.0
Castrated Goat	33,146	100	0	0.0	0	0.0	33,146	4.0
She Goat	438,038	100	102	0.0	333	0.1	438,472	52.8
Male Kid	101,825	98	1,578	1.5	333	0.3	103,735	12.5
She Kid	104,362	100	478	0.5	0	0.0	104,840	12.6
Total	825,538	99	3,794	0.5	665	0.1	829,997	100.0

19.4 GOAT PRODUCTION: Number of Indigenous Goat by Category and District as on 1st October, 2003

District	Number of Indigenous Goats					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Ukerewe	12,607	1,128	34,382	5,684	5,670	59,472
Magu	25,609	7,591	74,301	18,698	20,089	146,289
Kwimba	19,119	9,102	50,949	13,897	14,442	107,509
Sengerema	30,726	3,909	88,503	23,254	22,543	168,935
Geita	40,258	6,198	127,754	26,694	27,827	228,731
Missungwi	16,879	4,476	51,822	11,018	11,054	95,249
Ilemela	2,969	741	10,327	2,579	2,738	19,354
Total	148,167	33,146	438,038	101,825	104,362	825,538

19.5 GOAT PRODUCTION: Number of Improved Goat for Meat by Category and District as on 1st October, 2003

District	Number of Improved Meat Goats					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Ukerewe	12,607	1,128	34,382	5,684	5,670	59,472
Magu	25,609	7,591	74,301	18,698	20,089	146,289
Kwimba	19,119	9,102	50,949	13,897	14,442	107,509
Sengerema	30,726	3,909	88,503	23,254	22,543	168,935
Geita	40,258	6,198	127,754	26,694	27,827	228,731
Missungwi	16,879	4,476	51,822	11,018	11,054	95,249
Ilemela	2,969	741	10,327	2,579	2,738	19,354
Total	148,167	33,146	438,038	101,825	104,362	825,538

19.6 GOAT PRODUCTION: Number of Improved Dairy Goat by Category and District on 1st October, 2003

District	Number of Improved Dairy Goats					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Ukerewe	0	0	0	0	0	0
Magu	0	0	0	0	0	0
Kwimba	0	0	0	0	0	0
Sengerema	0	0	0	0	0	0
Geita	0	0	333	333	.	665
Missungwi	0	0	0	0	0	0
Ilemela	0	0	0	0	0	0
Total	0	0	333	333	0	665

19.7 GOAT PRODUCTION: Number of Goats by Category and District on 1st October, 2003

District	Total Goat					
	Billy Goat	Castrated Goat	She Goat	Male Kid	She Kid	Total
Ukerewe	12,607	1,128	34,382	5,684	5,670	59,472
Magu	25,609	7,591	74,301	18,945	20,460	146,908
Kwimba	19,119	9,102	50,949	13,897	14,442	107,509
Sengerema	30,726	3,909	88,503	23,254	22,649	169,042
Geita	41,895	6,198	128,188	28,356	27,827	232,464
Missungwi	16,879	4,476	51,822	11,018	11,054	95,249
Ilemela	2,969	741	10,327	2,579	2,738	19,354
Total	149,804	33,146	438,472	103,735	104,840	829,997

SHEEP PRODUCTION

20.1 SHEEP PRODUCTION: Total Number of Sheep By Breed and on 1st October 2003

Breed	Number of Indigenous		Number of Improved for Mutton		Total Sheep	
	Number	%	Number	%	Number	%
Ram	25,668	100.0	0	0.0	25,668	21.0
Castrated Sheep	11,591	100.0	0	0.0	11,591	9.5
She Sheep	59,256	100.0	0	0.0	59,256	48.6
Male Lamb	11,764	99.5	58	0.5	11,822	9.7
She Lamb	13,640	100.0	0	0.0	13,640	11.2
Total	121,920	100.0	58	0.0	121,978	100.0

20.2 SHEEP PRODUCTION: Number of Households Raising or Managing Sheep by District on 1st October, 2003

District	Households Raising Sheep		Households Not Raising Sheep		Number of Agricultural Households	Total Sheep keeping Households
	Number	%	Number	%		
Ukerewe	83	0	32,826	100	32,909	83
Magu	4,366	8	51,994	92	56,360	4,366
Kwimba	6,356	14	39,457	86	45,813	6,356
Sengerema	2,781	4	61,880	96	64,661	2,781
Geita	4,940	5	88,346	95	93,286	4,940
Missungwi	5,411	16	28,722	84	34,132	5,411
Ilemela	497	4	12,426	96	12,922	497
Total	24,433	7	315,651	93	340,085	24,433

20.3 SHEEP PRODUCTION: Number of Sheep by Type of Sheep and District as 1st October, 2002/03

District	Number of Indigenous		Number of Improved for Mutton		Total Sheep	
	Number	%	Number	%	Number	%
Ukerewe	166	100	0	0	166	0.1
Magu	27,299	100	0	0	27,299	22.4
Kwimba	39,364	100	0	0	39,364	32.3
Sengerema	9,801	100	0	0	9,801	8.0
Geita	15,090	100	0	0	15,090	12.4
Missungwi	28,634	100	0	0	28,634	23.5
Ilemela	1,566	96	58	4	1,624	1.3
Total	121,920	100	58	0	121,978	100

20.4 SHEEP PRODUCTION: Number of Households and Heads of Sheep by Herd Size on 1st October 2003

Herd Size	Number of Household	%	Number of Sheep	%	Average Number Per Household
1-4	14,502	60	35,087	29	2.4
5-9	7,362	30	48,010	39	6.5
10-14	1,611	7	17,801	15	11.1
15-19	381	2	6,386	5	16.8
20-24	120	0	2,636	2	22.0
25-29	0	0	0	0	0.0
30-39	0	0	0	0	0.0
40+	227	1	12,058	10	53.2
Total	24,201	100	121,978	100	5.0

20.5 SHEEP PRODUCTION: Average Number of Sheep by Type of Sheep and District on 1st October 2003, Mwanza Region

District	Number of Indigenous		Number of Improved for Mutton		Total Sheep	
	Number of Households	Average	Number of Households	Average	Number of Households	Average
Ukerewe	32,909	0.5	32,909	0.00	32,909	0.0
Magu	56,360	48.4	56,360	0.00	56,360	0.5
Kwimba	45,813	85.9	45,813	0.00	45,813	0.9
Sengerema	64,661	15.2	64,661	0.00	64,661	0.2
Geita	93,286	16.2	93,286	0.00	93,286	0.2
Missungwi	34,132	83.9	34,132	0.00	34,132	0.8
Ilemela	12,922	12.1	12,922	0.45	12,922	0.1
Total	340,085	35.8	340,085	0.02	340,085	0.4

20.6 SHEEP PRODUCTION: Total Number of Indigenous Sheep by Sheep Type and District on 1st October 2003

District	Number of Indigenous Sheep					
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	Total
Ukerewe	0	0	0	0	0	0
Magu	3,014	1,751	2,106	122	433	7,427
Kwimba	2,544	103	5,817	103	728	9,295
Sengerema	403	0	0	0	459	862
Geita	490		1,051	166	1,195	2,902
Missungwi	3,056	4,626	2,078	242	4,502	14,505
Ilemela	59		232			291
Total	9,566	6,480	11,285	633	7,316	35,281

20.7 SHEEP PRODUCTION: Total Number of Improved Mutton Sheep by Type and District on 1st October 2003

District	Number of Improved for Mutton					
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	Total
Ukerewe	0	0	0	0	0	0
Magu	0	0	0	0	0	0
Kwimba	0	0	0	0	0	0
Sengerema	0	0	0	0	0	0
Geita	0	0	0	0	0	0
Missungwi	0	0	0	0	0	0
Ilemela	0	0	0	58	0	58
Total	0	0	0	58	0	58

20.8 SHEEP PRODUCTION: Total Number of Sheep by Sheep Type and District on 1st October 2003

District	Total Sheep					
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	Total
Ukerewe	0	0	166	0	0	166
Magu	5,461	3,934	11,364	3,460	3,079	27,299
Kwimba	8,119	7,105	16,342	3,894	3,905	39,364
Sengerema	3,231	153	4,738	612	1,067	9,801
Geita	2,906	139	9,162	637	2,247	15,090
Missungwi	5,779	203	16,456	3,004	3,192	28,634
Ilemela	173	57	1,029	215	150	1,624
Total	25,668	11,591	59,256	11,822	13,640	121,978

PIG PRODUCTION

21.1 PIG PRODUCTION: Number of Households and Pigs by Herd Size on 1st October

Herd Size	Pig Rearing Households		Heads of Pigs		Average Number Per Household
	Number	%	Number	%	
1-4	0	0	0	0	0
5-9	76	100	610	100	8
10-14	0	0	0	0	0
Total	76	100	610	100	8

21.2 PIG PRODUCTION: Number of Households and Pigs by District on 1st October 2003

District	Number of Household	Number of Pig	Average Number Per Household
Ukerewe	32,909	0	0.000
Magu	56,360	139	0.002
Kwimba	45,813	0	0.000
Sengerema	64,661	0	0.000
Geita	93,286	310	0.003
Missungwi	34,132	161	0.005
Ilemela	12,922	0	0.000
Total	340,085	610	0.002

21.3 PIG PRODUCTION: Number of Pigs by Type and District on 1st October, 2003

District	Boar	Castrated Male	Sow / Gilt	Male Piglet	She Piglet	Total
Ukerewe	0	0	0	0	0	0
Magu	0	0	0	0	0	0
Kwimba	0	0	0	0	0	0
Sengerema	0	0	0	0	0	0
Geita	0	0	0	0	0	0
Missungwi	0	229	76	76	229	610
Ilemela	0	0	0	0	0	0
Total	0	229	76	76	229	610

LIVESTOCK PESTS AND PARASITE CONTROL

22.1 PESTS AND PARASITE: Number of Livestock Rearing households deworming Livestock by District during 2002/03 Agricultural Year

District	Deworming Livestock		Not Deworming Livestock		Total
	Number of Households	%	Number of Households	%	
Ukerewe	6,476	35	11,929	65	18,405
Magu	11,390	55	9,366	45	20,755
Kwimba	6,094	31	13,363	69	19,457
Sengerema	15,749	58	11,257	42	27,007
Geita	14,825	46	17,355	54	32,179
Missungwi	8,241	52	7,461	48	15,701
Ilemela	2,443	55	1,987	45	4,430
Total	65,218	47	72,717	53	137,935

22.2 PESTS AND PARASITE: Number of Livestock Rearing Households that dewormed Livestock by type of Livestock and District during the 2002/03 Agricultural Year

District	Goats		Cattle		Sheep		Pigs	
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Ukerewe	2,260	9	4,624	9	0	0	0	0
Magu	4,202	16	9,225	18	2,705	49	2,209	30
Kwimba	1,396	5	5,220	10	707	13	1,198	16
Sengerema	7,870	30	12,950	25	148	3	432	6
Geita	4,676	18	11,843	23	164	3	2,202	30
Missungwi	4,123	16	6,655	13	1,667	30	254	3
Ilemela	1,399	5	1,897	4	175	3	28	0
Total	25,927	100	52,413	100	5,566	100	6,323	100

22.3 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have encountered tick problems during 2002/03 Agriculture Year by District.

District	Ticks Problems		No Ticks Problems		Total
	Number of Households	%	Number of Households	%	
Ukerewe	13,014	77	3,992	23	17,006
Magu	15,670	74	5,366	26	21,036
Kwimba	11,263	60	7,472	40	18,736
Sengerema	19,831	81	4,656	19	24,488
Geita	18,718	60	12,241	40	30,960
Missungwi	12,589	81	3,030	19	15,619
Ilemela	2,590	63	1,497	37	4,087
Total	93,676	71	38,255	29	131,931

22.4 LIVESTOCK PESTS AND PARASITE CONTROL: Number of Livestock Rearing Households by Methods of Ticks Control Use and District During the 2002/03 Agricultural Year

District	Method of Tick Control										Total
	None		Spraying		Dipping		Smearing		Other		
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	
Ukerewe	5,818	45	4,909	38	77	1	72	1	2,138	16	13,014
Magu	2,605	17	11,373	73	892	6	262	2	538	3	15,670
Kwimba	1,453	13	8,814	78	197	2	193	2	606	5	11,263
Sengerema	3,670	19	13,624	69	444	2	703	4	1,390	7	19,831
Geita	2,055	11	15,628	83	0	0	383	2	652	3	18,718
Missungwi	3,191	25	8,632	69	176	1	261	2	329	3	12,589
Ilemela	1,174	45	707	27	339	13	26	1	344	13	2,590
Total	19,968	21	63,686	68	2,125	2	1,900	2	5,997	6	93,676

22.5 LIVESTOCK PESTS AND PARASITE CONTROL: Number and Percent of agricultural households reporting to have encountered Tsetse Flies problems during 2002/03 Agriculture Year by District

District	Tsetse Flies Problems		No Tsetse Flies Problems		Total
	Number of Households	%	Number of Households	%	
Ukerewe	812	5	16,102	95	16,914
Magu	399	2	20,238	98	20,637
Kwimba	413	2	18,736	98	19,149
Sengerema	296	1	26,713	99	27,009
Geita	890	3	30,396	97	31,287
Missungwi	712	5	14,362	95	15,074
Ilemela	0	0	4,376	100	4,376
Total	3,523	3	130,922	97	134,445

22.6 LIVESTOCK PESTS AND PARASITE CONTROL: Number of Livestock Rearing Households by Methods of Tsetse flies Control Use and District During the 2002/03 Agricultural Year

District	Method of Tsetse Flies Control								Total
	None		Spray		Dipping		Trapping		
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	
Ukerewe	497	61	315	39	0	0	0	0	912
Magu	0	0	399	100	0	0	0	0	499
Kwimba	0	0	413	100	0	0	0	0	513
Sengerema	296	100	0	0	0	0	0	0	396
Geita	0	0	890	100	0	0	0	0	990
Missungwi	626	88	86	12	0	0	0	0	812
Ilemela	0	0	0	0	0	0	0	0	0
Total	1,419	249	2,103	351	0	0	0	0	4,123

OTHER LIVESTOCK

23a OTHER LIVESTOCK: Total Number of Other Livestock by Type on 1st October 2003

Type	Chicken		Others	
	Number	%	Type	Number
Indigenous	2,580,891	98.5	Ducks	152,904
Layer	29,446	1.1	Turkeys	9,786
Broiler	10,481	0.4	Donkeys	9,038
Total	2,620,818	100.0		171,728

23b OTHER LIVESTOCK: Number of Chicken by Category of Chicken and District on 1st October 2003

District	Number of Chicken			Total Number of Chicken
	Indigenous Chicken	Layer	Broiler	
Ukerewe	195,212	4,010	0	199,222
Magu	339,669	2,912	0	342,581
Kwimba	399,645	0	0	399,645
Sengerema	565,343	2,945	9,182	577,470
Geita	805,676	0	1,299	806,975
Missungwi	230,751	18,885	0	249,636
Ilemela	44,595	695	0	45,290
Total	2,580,891	29,446	10,481	2,620,818

23c OTHER LIVESTOCK: Head Number of Other Livestock by Type of Livestock and District

District	Type of Livestock			
	Ducks	Turkeys	Donkeys	Other
Ukerewe	54,204	232	0	0
Magu	10,683	4,972	0	0
Kwimba	2,465	0	6,271	0
Sengerema	49,784	4,354	0	1,461
Geita	25,237	0	2,415	1,299
Missungwi	5,248	229	353	0
Ilemela	5,283	0	0	0
Total	152,904	9,786	9,038	2,760

23d OTHER LIVESTOCK: Total Number of Households and Chicken Raised by Flock Size as of 1st October 2003

Flock Size	Chicken Rearing Households		Number of Chicken	Average Chicken per Household
	Number	%		
1 - 4	60,907	25	167,268	3
5 - 9	72,432	30	476,437	7
10 - 19	70,807	30	897,803	13
20 - 29	21,625	9	476,439	22
30 - 39	8,389	4	272,062	32
40 - 49	2,667	1	115,708	43
50 - 99	2,185	1	133,911	61
100+	528	0	81,189	154
Total	239,539	100	2,620,818	11

23e LIVESTOCK/POULTRY POPULATION TREND

Type of Livestock/Poultry	1995	1999	2003
Cattle	2,450,396	2,163,997	1,718,190
Improved Cattle	0	1,700	7,882
Goats	764,260	863,640	829,997
Sheep	199,317	116,565	121,978
Pigs	0	22,486	610
Indigenous Chicken	2,623,825	2,873,622	2,620,818
Layers	0	92,228	29,446
Broilers	0	0	0
Total Chickens	2,623,825	2,965,850	2,650,264

FISH FARMING

28.1 FISH FARMING: Number of Agricultural Households involved in Fish Farming and District, 2002/03 Agricultural Year

District	Agricultural Households Doing Fish Farming		Agricultural Households NOT Doing Fish Farming		Total
	Number	%	Number	%	
Ukerewe	0	0.0	32,909	100.0	32,909
Magu	138	0.2	56,222	99.8	56,360
Kwimba	99	0.2	45,714	99.8	45,813
Sengerema	0	0.0	64,661	100.0	64,661
Geita	0	0.0	93,286	100.0	93,286
Missungwi	90	0.3	34,043	99.7	34,132
Ilemela	0	0.0	12,922	100.0	12,922
Total	326	0.1	339,758	99.9	340,085

28.2 FISH FARMING: Number of Agricultural Households By System of Farming and District during the 2002/03 Agricultural Year

District	Fish Farming System	
	Dug out Pond	Total
Kwimba	99	99
Total	99	99

28.3 FISH FARMING: Number of Agricultural Households By Source of Fingerlings and District during the 2002/03 Agricultural Year

District	Source of Fingerling	
	NGOs / Project	Total
Kwimba	99	99
Total	99	99

28.4 FISH FARMING: Number of Agricultural Households By Location of Selling Fish and District during the 2002/03 Agricultural Year

District	Did not Sell	
	Number	Total
Kwimba	99	99
Total	99	99

28.5 FISH FARMING: Total Number of Fish Harvested by Type and District, 2002/03 Agricultural Year

District	Number of Tilapia	Number of Carp	Number of Others
Kwimba	1,972	0	2,958
Total	1,972	0	2,958

LIVESTOCK EXTENSION

29.1a LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension by District During the 2002/03 Agricultural Year

District	Received Livestock Advice		Did Not Receive Livestock Advice		Total	Total Number of households raising livestock	% receiving advice out of total
	Number	%	Number	%			
Ukerewe	4,854	14.8	28,054	85.2	32,909	17,422.0	28
Magu	9,476	16.8	46,884	83.2	56,360	18,008.0	53
Kwimba	3,451	7.5	42,362	92.5	45,813	17,025.0	20
Sengerema	5,960	9.2	58,701	90.8	64,661	23,676.0	25
Geita	2,359	2.5	90,927	97.5	93,286	25,008.0	9
Missungwi	5,412	15.9	28,720	84.1	34,132	13,370.0	40
Ilemela	2,748	21.3	10,174	78.7	12,922	3,553.0	77
Total	34,262	10.1	305,823	89.9	340,085	118,062.0	29

29.1b LIVESTOCK EXTENSION SERVICE PROVIDERS: Number of Agricultural Households By Source of Extension Services and District during the 2002/03 Agricultural Year

District	Source of extension advice											
	Government		NGO / Development Project		Co-operative		Large Scale Farmer		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Ukerewe	4,854	20	4,769	20	4,769	20	4,769	20	4,769	20	23,930	100
Magu	9,476	20	9,476	20	9,476	20	9,339	20	9,339	20	47,107	100
Kwimba	3,451	20	3,354	20	3,354	20	3,354	20	3,354	20	16,866	100
Sengerema	5,960	20	5,960	20	5,960	20	5,960	20	5,960	20	29,801	100
Geita	2,359	22	2,108	20	2,108	20	2,108	20	2,108	20	10,790	100
Missungwi	5,412	20	5,412	20	5,412	20	5,412	20	5,412	20	27,062	100
Ilemela	2,748	20	2,748	20	2,748	20	2,748	20	2,748	20	13,741	100
Total	34,262	20.2	33,827	20.0	33,827	20.0	33,690	19.9	33,690	19.9	169,296	100

29.2 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Feeds and Proper Feeding By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Feeds and Proper Feeding			Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Total		
Ukerewe	1,313	0	1,313	17,422	7.5
Magu	2,829	0	2,829	18,008	15.7
Kwimba	697	0	697	17,025	4.1
Sengerema	2,837	0	2,837	23,676	12.0
Geita	419	0	419	25,008	1.7
Missungwi	1,652	179	1,832	13,370	13.7
Ilemela	1,345	0	1,345	3,553	37.9
Total	11,091	179	11,270	118,062	9.5
%	98.4	1.6	100.0		

29.3 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Housing By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Housing				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Other	Total		
Ukerewe	2,921	0	0	2,921	17,422	16.8
Magu	5,322	0	111	5,433	18,008	30.2
Kwimba	1,602	0	0	1,602	17,025	9.4
Sengerema	4,184	0	0	4,184	23,676	17.7
Geita	837	0	0	837	25,008	3.3
Missungwi	3,138	151	0	3,289	13,370	24.6
Ilemela	1,459	43	0	1,503	3,553	42.3
Total	19,463	195	111	19,768	118,062	16.7
%	98.5	1.0	0.6	100.0		

29.4 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Proper Milking By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Proper Milking				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Other	Total		
Ukerewe	1,916	0	0	0	17,422	0.0
Magu	2,444	0	124	0	18,008	0.0
Kwimba	818	0	0	0	17,025	0.0
Sengerema	2,834	0	0	0	23,676	0.0
Geita	166	0	0	0	25,008	0.0
Missungwi	1,175	76	0	76	13,370	0.6
Ilemela	554	0	0	0	3,553	0.0
Total	9,908	76	124	76	118,062	0.1
%	8.4	0.1	0.1	0.1		

29.5 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Milk Hygiene By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Milk Hygiene			Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Total		
Ukerewe	2,001	0	2,001	17,422	11.5
Magu	2,702	0	2,702	18,008	15.0
Kwimba	818	0	818	17,025	4.8
Sengerema	2,962	0	2,962	23,676	12.5
Geita	1,531	82	1,613	25,008	6.5
Missungwi	674	43	717	13,370	5.4
Ilemela	10,688	125	10,813	3,553	304.3
Total	21,377	250	21,627	118,062	18.3
%	18.1	0.2	18.3		

29.6 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Disease Control By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Disease Control				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Other	Total		
Ukerewe	4,028	0	0	4,028	17,422	23
Magu	7,996	0	0	7,996	18,008	44
Kwimba	2,935	0	0	2,935	17,025	17
Sengerema	4,950	0	135	5,085	23,676	21
Geita	1,167	0	0	1,167	25,008	5
Missungwi	4,238	166	87	4,491	13,370	34
Ilemela	1,754	69	0	1,823	3,553	51
Total	27,068	235	222	27,525	118,062	23
%	22.9	0.2	0.2	23.3		

29.7 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Herd /Flock Size and Selection By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Herd/Flock Size				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Large Scale Farmer	Total		
Ukerewe	501	0	0	501	17,422	2.9
Magu	3,854	138	226	4,218	18,008	23.4
Kwimba	808	0	0	808	17,025	4.7
Sengerema	2,231	0	0	2,231	23,676	9.4
Geita	335	0	0	335	25,008	1.3
Missungwi	2,317	0	90	2,407	13,370	18.0
Ilemela	490	0	51	541	3,553	15.2
Total	10,536	138	366	11,040	118,062	9.4
%	95.4	1.3	3.3	100.0		

29.8 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Pasture Establishment and Selection By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Pasture Establishment and Selection				Total	Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Large Scale Farmer	not applicable			
Ukerewe	253	0	0	0	253	17,422	1.5
Magu	2,791	138	624	0	3,553	18,008	19.7
Kwimba	210	0	0	0	210	17,025	1.2
Sengerema	2,405	0	0	0	2,405	23,676	10.2
Geita	335	0	0	0	335	25,008	1.3
Missungwi	887	82	0	0	969	13,370	7.2
Ilemela	734	78	0	0	812	3,553	22.9
Total	7,614	298	624	0	8,537	118,062	7.2
%	89.2	3.5	7.3	0.0	100.0		

29.9 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Group Formation and Strengthening By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Group Formation and Strengthening				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Co-operative	Total		
Ukerewe	585	0	0	585	17,422	3
Magu	3,368	402	258	4,029	18,008	22
Kwimba	805	93	0	898	17,025	5
Sengerema	2,051	0	0	2,051	23,676	9
Geita	587	0	0	587	25,008	2
Missungwi	2,165	90	82	2,336	13,370	17
Ilemela	496	35	0	531	3,553	15
Total	10,057	620	340	11,016	118,062	9
%	91.3	5.6	3.1	100.0		

29.10 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Calf Rearing By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Calf Rearing				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Other	Total		
Ukerewe	1,088	0	0	1,088	17,422	6.2
Magu	4,562	138	111	4,811	18,008	26.7
Kwimba	2,235	0	0	2,235	17,025	13.1
Sengerema	4,664	0	135	4,799	23,676	20.3
Geita	906	0	0	906	25,008	3.6
Missungwi	2,349	269	0	2,618	13,370	19.6
Ilemela	1,240	58	0	1,298	3,553	36.5
Total	17,043	465	246	17,754	118,062	15.0
%	96.0	2.6	1.4	100.0		

29.11 LIVESTOCK EXTENSION: Number of Agricultural Households Receiving Extension Advice on Use of Improved Bulls By Source and District, 2002/03 Agricultural Year

District	Source of Advice on Improved Bulls				Total Number of households raising livestock	% receiving advice out of total
	Government	NGO / Development Project	Large Scale Farmer	Total		
Ukerewe	1,332	0	0	1,332	17,422	8
Magu	2,574	138	292	3,004	18,008	17
Kwimba	1,024	0	0	1,024	17,025	6
Sengerema	3,142	0	0	3,142	23,676	13
Geita	1,098	0	0	1,098	25,008	4
Missungwi	1,450	242	0	1,692	13,370	13
Ilemela	524	0	0	524	3,553	15
Total	11,144	380	292	11,816	118,062	10
%	94.3	3.2	2.5	100.0		

29.12 LIVESTOCK EXTENSION: Number of Agricultural Households By Quality of Extension Services and District, 2002/03 Agricultural Year

District	Quality of Service										Total
	Very Good		Good		Average		Poor		No Good		
	Number	%	Number	%	Number	%	Number	%	Number	%	
Ukerewe	684	15	2,836	61	1,163	25	0	0	0	0	4,684
Magu	3,584	23	9,307	59	933	6	1,350	9	564	4	15,737
Kwimba	1,232	31	2,508	64	207	5	0	0	0	0	3,946
Sengerema	3,213	43	2,960	40	779	10	0	0	512	7	7,464
Geita	1,022	15	771	12	735	11	0	0	4,087	62	6,615
Missungwi	2,384	32	2,867	39	1,199	16	0	0	948	13	7,399
Ilemela	144	5	1,791	57	675	21	247	8	307	10	3,163
Total	12,263	25	23,039	47	5,690	12	1,597	3	6,417	13	49,007

ACCESS TO INFRASTRUCTURE AND OTHER SERVICES

33.01a ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Mean Distances from Household Dwellings to Infrastructures and Services by Districts

District	Mean Distance to										
	Secondary Schools	Primary Schools	All weather roads	Feeder Roads	Hospitals	Health Clinics	District Capital	Primary Markets	Secondary Market	Tertiary Market	Tarmac Roads
Ukerewe	17.9	1.1	0.9	0.8	18.3	4.1	70.0	5.8	11.8	21.5	22.7
Magu	12.5	3.1	3.0	2.0	25.5	7.3	79.0	5.0	19.3	30.4	14.5
Kwimba	9.6	2.5	4.7	1.7	26.5	4.8	85.6	8.2	11.9	28.8	27.4
Sengerema	12.1	1.6	4.3	0.6	29.6	6.3	64.7	4.1	34.9	33.5	59.8
Geita	13.5	3.4	5.6	1.4	45.1	7.1	136.4	3.9	23.9	65.1	110.5
Missungwi	11.1	2.0	5.3	1.2	26.4	4.3	63.8	6.9	15.6	55.0	19.6
Ilemela	10.8	1.8	1.7	1.0	16.5	5.0	20.9	6.9	11.5	17.4	9.7
Total	12.6	2.5	4.2	1.3	30.8	6.0	88.3	5.3	21.1	41.4	52.3

District Capital	88.3
Tarmac Roads	52.3
Tertiary Market	41.4
Hospitals	30.8
Secondary Schools	12.6
Secondary Market	21.1
Primary Markets	5.3
Health Clinics	6.0
All weather roads	4.2
Primary Schools	2.5
Feeder Roads	1.3

33.01b ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households By Distance to Secondary School by District for 2002/03 agriculture year

District	Distance to Secondary School										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	469	1	1,900	6	9,514	29	7,283	22	13,742	42	32,909	18
Magu	1,571	3	3,397	6	23,280	41	17,824	32	10,288	18	56,360	13
Kwimba	5,299	12	2,578	6	20,894	46	10,536	23	6,506	14	45,813	10
Sengerema	2,532	4	6,975	11	21,871	34	22,242	34	11,042	17	64,661	12
Geita	1,743	2	10,586	11	32,342	35	22,549	24	26,066	28	93,286	13
Missungwi	1,030	3	2,575	8	13,970	41	12,001	35	4,557	13	34,132	11
Ilemela	293	2	1,663	13	5,152	40	3,907	30	1,907	15	12,922	11
Total	12,937	4	29,674	9	127,022	37	96,343	28	74,109	22	340,085	13

33.01c ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households By Distance to All Weather Road by District for 2002/03 agriculture year

District	Distance to All Weather Road										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	23,600	72	7,040	21	2,183	7	0	0	85	0	32,909	0.9
Magu	20,078	36	17,364	31	14,013	25	4,637	8	268	0	56,360	3.0
Kwimba	13,900	30	12,676	28	14,754	26	3,029	7	1,453	3	45,813	4.7
Sengerema	25,879	40	17,202	27	13,421	24	4,229	7	3,930	6	64,661	4.3
Geita	31,980	34	19,106	20	23,356	41	12,319	13	6,526	7	93,286	5.6
Missungwi	10,733	31	9,385	27	7,990	14	4,473	13	1,552	5	34,132	5.3
Ilemela	7,194	56	3,271	25	2,258	4	0	0	199	2	12,922	1.7
Total	133,363	39	86,043	25	77,976	138	28,687	8	14,015	4	340,085	4.2

33.01d ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Feeder Road by District for 2002/03 agriculture year

District	Distance to Feeder Road										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	29,412	89.4	2,996	9.1	168	0.5	0	0.0	333	1.0	32,909	0.8
Magu	27,671	49.1	22,531	40.0	5,510	9.8	0	0.0	649	1.2	56,360	2.0
Kwimba	19,268	42.1	14,281	31.2	12,062	26.3	100	0.2	101	0.2	45,813	1.7
Sengerema	45,249	70.0	17,644	27.3	1,768	2.7	0	0.0	0	0.0	64,661	0.6
Geita	53,444	57.3	31,130	33.4	8,143	8.7	139	0.1	430	0.5	93,286	1.4
Missungwi	20,661	60.5	8,814	25.8	4,657	13.6	0	0.0	0	0.0	34,132	1.2
Ilemela	10,407	80.5	2,198	17.0	221	1.7	0	0.0	96	0.7	12,922	1.0
Total	206,111	60.6	99,595	29.3	32,529	9.6	239	0.1	1,610	0.5	340,085	1.3

33.01e ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households By Distance to Hospital by District for 2002/03 agriculture year

District	Distance to hospital										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	309	0.9	253	0.8	9,343	28.4	11,058	33.6	11,058	33.6	32,909	18.3
Magu	1,187	2.1	779	1.4	8,892	15.8	11,340	20.1	11,340	20.1	56,360	25.5
Kwimba	2,239	4.9	1,161	2.5	13,279	29.0	7,918	17.3	7,918	17.3	45,813	26.5
Sengerema	154	0.2	3,539	5.5	6,284	9.7	11,345	17.5	11,345	17.5	64,661	29.6
Geita	600	0.6	230	0.2	1,468	1.6	6,426	6.9	6,426	6.9	93,286	45.1
Missungwi	1,054	3.1	857	2.5	8,554	25.1	9,446	27.7	9,446	27.7	34,132	26.4
Ilemela	160	1.2	358	2.8	3,133	24.2	5,450	42.2	5,450	42.2	12,922	16.5
Total	5,704	1.7	7,177	2.1	50,952	15.0	62,983	18.5	62,983	18.5	340,085	30.8

33.01f ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Health Clinic by District for 2002/03 agricultural year

District	Health clinic										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	4,955	15.1	10,986	33.4	15,131	46.0	1,589	4.8	248	0.8	32,909	4.1
Magu	7,179	12.7	13,884	24.6	26,437	46.9	7,626	13.5	1,235	2.2	56,360	7.3
Kwimba	4,176	9.1	11,092	24.2	25,782	56.3	4,344	9.5	419	0.9	45,813	4.8
Sengerema	10,192	15.8	23,890	36.9	24,844	38.4	5,286	8.2	450	0.7	64,661	6.3
Geita	6,298	6.8	17,308	18.6	58,727	63.0	6,226	6.7	4,727	5.1	93,286	7.1
Missungwi	4,384	12.8	8,924	26.1	17,971	52.7	2,764	8.1	90	0.3	34,132	4.3
Ilemela	1,328	10.3	5,678	43.9	5,478	42.4	338	2.6	102	0.8	12,922	5.0
Total	38,510	11.3	91,761	27.0	174,370	51.3	28,172	8.3	7,271	2.1	340,085	6.0

33.01g ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by distance to Primary School for 2002/03 agriculture year

District	Distance to Primary School										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	17,876	54.3	11,709	35.6	3,238	9.8	85	0.3	0	0.0	32,909	1.1
Magu	15,701	27.9	29,702	52.7	10,152	18.0	268	0.5	537	1.0	56,360	3.1
Kwimba	7,872	17.2	22,103	48.2	15,524	33.9	0	0.0	314	0.7	45,813	2.5
Sengerema	19,770	30.6	33,987	52.6	10,598	16.4	151	0.2	155	0.2	64,661	1.6
Geita	21,334	22.9	51,138	54.8	20,481	22.0	0	0.0	334	0.4	93,286	3.4
Missungwi	6,328	18.5	19,572	57.3	8,142	23.9	0	0.0	90	0.3	34,132	2.0
Ilemela	2,948	22.8	7,426	57.5	2,394	18.5	104	0.8	51	0.4	12,922	1.8
Total	91,828	27.0	175,637	51.6	70,529	20.7	609	0.2	1,481	0.4	340,085	2.5

33.01h ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Regional Capital by District for 2002/03 agriculture year

District	Distance to Regional Capital										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	0	0.0	0	0	0	0.0	0	0.0	32,909	100.0	32,909	70.0
Magu	0	0.0	0	0	0	0.0	0	0.0	56,360	100.0	56,360	79.0
Kwimba	0	0.0	0	0	0	0.0	0	0.0	45,813	100.0	45,813	85.6
Sengerema	0	0.0	0	0	0	0.0	0	0.0	64,661	100.0	64,661	64.7
Geita	0	0.0	0	0	0	0.0	0	0.0	93,286	100.0	93,286	136.4
Missungwi	0	0.0	0	0	0	0.0	0	0.0	34,132	100.0	34,132	63.8
Ilemela	0	0.0	0	0	2,161	16.7	5,685	44.0	5,077	39.3	12,922	20.9
Total	0	0.0	0	0	7,081	2.1	9,457	2.8	319,915	94.1	340,085	88.3

33.01i ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to District Capital by District for 2002/03 agriculture year

District	Distance to District Capital										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	80	0.2	85	0.3	3,395	10.3	11,517	35.0	17,832	54.2	32,909	22.7
Magu	638	1.1	0	0.0	4,436	7.9	6,850	12.2	44,437	78.8	56,360	36.6
Kwimba	1,569	3.4	309	0.7	5,737	12.5	5,044	11.0	33,153	72.4	45,813	36.6
Sengerema	0	0.0	365	0.6	3,564	5.5	9,678	15.0	51,054	79.0	64,661	34.0
Geita	434	0.5	85	0.1	1,302	1.4	6,426	6.9	85,039	91.2	93,286	45.9
Missungwi	0	0.0	0	0.0	6,126	17.9	5,967	17.5	22,039	64.6	34,132	31.3
Ilemela	51	0.4	107	0.8	2,093	16.2	5,705	44.1	4,966	38.4	12,922	17.0
Total	2,772	0.8	952	0.3	26,653	7.8	51,187	15.1	258,521	76.0	340,085	36.0

33.01j ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Tarmac Road by District for 2002/03 agricultural year

District	Tarmac Road										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	4,875	14.8	0	0.0	3,643	11.1	6,949	21.1	17,441	53.0	32,909	22.7
Magu	6,660	11.8	7,607	13.5	14,963	26.5	5,980	10.6	21,150	37.5	56,360	14.5
Kwimba	692	1.5	1,577	3.4	8,672	18.9	10,131	22.1	24,741	54.0	45,813	27.4
Sengerema	2,846	4.4	507	0.8	4,574	7.1	862	1.3	55,871	86.4	64,661	59.8
Geita	6,185	6.6	167	0.2	170	0.2	165	0.2	86,599	92.8	93,286	110.5
Missungwi	2,182	6.4	2,703	7.9	10,288	30.1	3,683	10.8	15,277	44.8	34,132	19.6
Ilemela	852	6.6	1,533	11.9	5,792	44.8	2,273	17.6	2,472	19.1	12,922	9.7
Total	24,294	7.1	14,094	4.1	48,102	14.1	30,043	8.8	223,551	65.7	340,085	52.3

33.01k ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Primary Market by District for 2002/03 agricultural year

District	Primary Market										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	3,377	10.3	6,569	20.0	18,082	54.9	18,082	54.9	730	2.2	32,909	5.8
Magu	7,992	14.2	14,823	26.3	27,384	48.6	27,384	48.6	1,334	2.4	56,360	5.0
Kwimba	4,060	8.9	6,336	13.8	24,595	53.7	24,595	53.7	2,484	5.4	45,813	8.2
Sengerema	11,424	17.7	26,332	40.7	24,905	38.5	24,905	38.5	605	0.9	64,661	4.1
Geita	18,231	19.5	25,608	27.5	41,933	45.0	41,933	45.0	983	1.1	93,286	3.9
Missungwi	3,531	10.3	5,157	15.1	17,652	51.7	17,652	51.7	969	2.8	34,132	6.9
Ilemela	351	2.7	1,296	10.0	7,552	58.4	7,552	58.4	187	1.5	12,922	6.9
Total	48,966	14.4	86,121	25.3	162,103	47.7	162,103	47.7	7,291	2.1	340,085	5

33.01l ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Tertiary Market by District for 2002/03 agricultural year

District	Tertiary Market										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	3,112	9.5	729	2.2	4,723	14.4	9,930	30.2	14,414	43.8	32,909	21.5
Magu	916	1.6	2,888	5.1	11,056	19.6	7,297	12.9	34,203	60.7	56,360	30.4
Kwimba	3,525	7.7	3,382	7.4	12,376	27.0	6,477	14.1	20,053	43.8	45,813	28.8
Sengerema	1,739	2.7	4,476	6.9	11,734	18.1	7,735	12.0	38,977	60.3	64,661	33.5
Geita	1,507	1.6	4,205	4.5	9,242	9.9	8,099	8.7	70,233	75.3	93,286	65.1
Missungwi	306	0.9	565	1.7	1,554	4.6	3,292	9.6	28,415	83.2	34,132	55.0
Ilemela	0	0.0	51	0.4	2,276	17.6	6,242	48.3	4,353	33.7	12,922	17.4
Total	11,106	3.3	16,296	4.8	52,962	15.6	49,072	14.4	210,648	61.9	340,085	41.4

33.01m ACCESS TO INFRASTRUCTURE AND OTHER SERVICES: Number of Households by Distance to Secondary Market by District for 2002/03 agricultural year

District	Secondary Market										Total number of households	Mean Distance
	Less than 1 km		1-2.9 km		3.0-9.9		10.0-19.9		Above 20 km			
	No of households	%	No of households	%	No of households	%	No of households	%	No of households	%		
Ukerewe	10,826	33	2,459	7	6,391	19	10,585	32	2,648	8	32,909	12
Magu	2,133	4	5,254	9	11,831	21	12,253	22	24,889	44	56,360	19
Kwimba	1,303	3	1,109	2	19,644	43	18,662	41	5,095	11	45,813	12
Sengerema	408	1	620	1	3,598	6	10,298	16	49,737	77	64,661	35
Geita	643	1	1,425	2	25,954	28	28,077	30	37,187	40	93,286	24
Missungwi	327	1	1,006	3	11,929	35	11,543	34	9,327	27	34,132	16
Ilemela	54	0	863	7	6,367	49	2,908	23	2,730	21	12,922	11
Total	15,695	5	12,735	4	85,714	25	94,327	28	131,613	39	340,085	21

**33.19a TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Veterinary Clinic and District, 2002/03
Agricultural Year**

District	Satisfaction of Using Veterinary Clinic										Total number of households
	Very Good		Good		Average		Poor		No good		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	139	1	12,959	58	8,463	38	827	4	250	1	22,388
Magu	3,612	6	13,447	22	19,052	31	24,642	41	8,880	15	60,753
Kwimba	600	3	4,290	22	5,008	26	9,418	49	4,680	24	19,316
Sengerema	743	4	6,065	36	4,783	28	5,397	32	432	3	16,989
Geita	5,428	14	1,476	4	3,254	8	29,081	74	33,566	86	39,239
Missungwi	2,672	18	4,312	29	6,866	47	857	6	10,344	70	14,708
Ilemela	224	6	1,310	35	700	19	1,461	40	333	9	3,695
Total	13,417	8	43,860	25	48,127	27	71,684	40	58,486	33	177,089

**33.19b TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Extension Centre and District, 2002/03
Agricultural Year**

District	Extension Centre										Total number of households
	Very Good		Good		Average		Poor		No good		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	0	0	3,568	57	2,424	39	168	3	83	1	6,243
Magu	1,630	10	6,786	40	4,895	29	3,144	18	649	4	17,104
Kwimba	196	4	1,251	28	700	16	1,415	31	938	21	4,499
Sengerema	434	6	4,479	60	1,797	24	595	8	153	2	7,459
Geita	2,724	22	849	7	499	4	4,133	33	4,214	34	12,418
Missungwi	815	16	1,659	33	2,574	51	0	0	0	0	5,047
Ilemela	137	9	913	59	220	14	220	14	55	4	1,546
Total	5,935	11	19,504	36	13,108	24	9,675	18	6,092	11	54,315

**33.19c TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Research Station and District, 2002/03
Agricultural Year**

District	Research Station										Total number of households
	Very Good		Good		Average		Poor		No good		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	0	0	769	46	758	45	152	9	0	0	1,679
Magu	261	3	1,024	11	2,328	24	4,726	49	1,404	14	9,744
Kwimba	0	0	208	7	394	13	1,681	56	730	24	3,012
Sengerema	0	0	133	8	436	28	1,005	64	0	0	1,573
Geita	608	5	0	0	0	0	5,115	42	6,598	54	12,320
Missungwi	808	17	1,045	22	263	5	172	4	2,502	52	4,789
Ilemela	0	0	59	12	107	23	248	53	55	12	469
Total	1,676	5	3,237	10	4,286	13	13,097	39	11,290	34	33,586

33.19d TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Plant Protection Lab. and District, 2002/03 Agricultural Year

District	Plant Protection Lab										Total number of households
	Very Good		Good		Average		Poor		No good		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	0	0.0	427	29.6	844	58.5	171	11.9	171	11.9	1,442
Magu	255	2.6	1,082	11.0	2,465	25.0	4,079	41.4	4,079	41.4	9,850
Kwimba	0	0.0	311	10.0	497	16.0	1,576	50.6	1,576	50.6	3,113
Sengerema	0	0.0	133	11.7	152	13.4	850	74.9	850	74.9	1,135
Geita	564	4.8	0	0.0	0	0.0	4,632	39.3	4,632	39.3	11,794
Missungwi	738	18.0	443	10.8	166	4.1	172	4.2	172	4.2	4,106
Ilemela	0	0.0	0	0.0	107	27.9	220	57.5	220	57.5	382
Total	1,558	4.9	2,395	7.5	4,231	13.3	11,700	36.8	11,700	36.8	31,823

33.19e TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Land Registration Office and District, 2002/03 Agricultural Year

District	Land Registration Office										Total number of households
	Very Good		Good		Average		Poor		No good		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	72	1.7	2,688	62.9	1,261	29.5	252	5.9	0	0.0	4,271
Magu	541	5.3	892	8.7	2,328	22.7	4,079	39.7	2,431	23.7	10,271
Kwimba	301	6.0	409	8.1	2,012	40.0	1,483	29.5	823	16.4	5,028
Sengerema	155	5.8	281	10.5	974	36.6	974	36.6	279	10.5	2,663
Geita	795	6.0	136	1.0	867	6.5	4,784	36.0	6,707	50.5	13,289
Missungwi	84	2.7	0	0.0	174	5.6	255	8.2	2,587	83.4	3,100
Ilemela	0	0.0	223	32.2	107	15.4	306	44.3	55	8.0	691
Total	1,948	5	4,628	11.8	7,723	19.6	12,132	30.9	12,881	32.8	39,312

33.19f TYPE OF SERVICE: Number of Agricultural Households by Satisfaction of Using Livestock development Centre and District, 2002/03 Agricultural Year

District	Livestock Development Centre										Total number of households
	Very Good		Good		Average		Poor		No good		
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Ukerewe	68	1.6	2,834	66.8	1,257	29.6	0	0.0	85	2.0	4,244
Magu	407	4.3	892	9.5	2,524	26.8	4,205	44.6	1,404	14.9	9,432
Kwimba	0	0.0	490	13.6	600	16.7	1,780	49.5	730	20.3	3,599
Sengerema	0	0.0	0	0.0	152	15.5	830	84.5	0	0.0	982
Geita	317	2.8	406	3.6	812	7.1	5,108	44.9	4,725	41.6	11,369
Missungwi	0	0.0	340	8.2	1,125	27.2	169	4.1	2,502	60.5	4,136
Ilemela	86	17.2	59	11.7	53	10.6	248	49.4	55	11.1	502
Total	879	2.6	5,021	14.7	6,523	19.0	12,340	36.0	9,502	27.7	34,264

HOUSEHOLD FACILITIES

34.1 HOUSEHOLD FACILITIES: Number of Agriculture Households by Type of Toilet and District During the 2002/03 Agriculture Year

District	Type of toilet				Total number of households
	No Toilet	Flush Toilet	Traditional Pit Latrine	Improved Pit Latrine - hh Owned	
Ukerewe	2,585	1,483	28,183	657	32,909
Magu	3,442	2,639	49,225	1,054	56,360
Kwimba	6,016	1,215	37,481	1,101	45,813
Sengerema	5,714	0	57,233	1,714	64,661
Geita	10,861	4,724	75,838	1,863	93,286
Missungwi	1,883	311	31,504	435	34,132
Ilemela	864	945	10,774	339	12,922
Total	31,365	11,317	290,238	7,164	340,085
%	9.2	3.3	85.3	2.1	100.0

34.2 HOUSEHOLD FACILITIES: Number of households reporting average number of rooms and type of Roofing Materials by District, 2002/03 Agricultural Year

District	Average Number of rooms per Household	Iron Sheets	Tiles	Concrete	Asbestos	Grass / Leaves	Grass & Mud	Other	Total number of households
Ukerewe	2	18,980	0	0	166	11,859	1,903	0	32,909
Magu	3	25,778	250	111	1,187	23,200	5,835	0	56,360
Kwimba	4	11,596	99	0	92	27,271	6,755	0	45,813
Sengerema	3	28,437	257	0	0	31,889	4,078	0	64,661
Geita	3	36,512	1,402	1,204	305	42,764	10,513	585	93,286
Missungwi	3	8,027	90	0	0	25,401	615	0	34,132
Ilemela	3	6,317	160	97	58	5,210	1,081	0	12,922
Total	3	135,648	2,257	1,412	1,809	167,594	30,779	585	340,085
%		39.9	0.7	0.4	0.5	49.3	9.1	0.2	100.0

34.3 HOUSEHOLD FACILITIES: Number of Agricultural Households by Type of Owned Assets and District during 2002/03 Agricultural Year

Type of Owned Asset	District										Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Number of Households	%
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%		
Radio	23,352	11	33,658	16	22,731	11	47,744	22	58,226	27	214,688	100
Landline phone	240	19	241	19	0	0	300	23	328	25	1,287	100
Mobile phone	776	12	849	13	604	9	996	16	2,587	40	6,398	100
Iron	4,659	8	10,440	18	5,894	10	14,869	26	13,088	23	56,529	100
Wheelbarrow	1,576	8	4,009	20	3,203	16	1,740	9	7,064	36	19,633	100
Bicycle	15,991	7	36,737	17	29,251	14	44,666	21	60,159	28	216,618	100
Vehicle	77	3	935	32	613	21	428	15	424	15	2,904	100
Television / Video	386	10	288	8	617	17	558	15	1,051	28	3,703	100
Total Number of Households	47,056	9	87,156	17	62,914	12	111,302	21	142,927	27	521,760	100

34.4 HOUSEHOLD FACILITIES: Number of Agricultural Households by Type of Owned Assets and District during 2002/03 Agricultural Year

Type of Owned Asset	District				Total	
	Missungwi		Ilemela		Number of Households	%
	Number of Households	%	Number of Households	%		
Radio	20,579	9.6	8,191	3.8	214,688	100.0
Landline phone	177	13.8	0	0.0	1,287	100.0
Mobile phone	443	6.9	135	2.1	6,398	100.0
Iron	4,903	8.7	2,600	4.6	56,529	100.0
Wheelbarrow	1,358	6.9	658	3.3	19,633	100.0
Bicycle	23,072	10.7	6,456	3.0	216,618	100.0
Vehicle	424	14.6	0	0.0	2,904	100.0
Television / Video	619	16.7	178	4.8	3,703	100.0
Households	51,575	9.9	18,216	3.5	521,760	100.0

34.5 HOUSEHOLD FACILITIES: Number of Agricultural Households by Main Source of Energy Used for Lighting during 2002/03 Agricultural Year

Main Source of Energy for Lighting	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Mains Electricity	401	15.7	736	0.0	202	0.0	155	0.0	406	0.0	659	0.0	0	0.0	2,559	0.0
Solar	0	0.0	134	17.6	0	0.0	431	56.6	168	22.0	0	0.0	28	3.7	761	100.0
Gas (Biogas)	0	0.0	0	0.0	0	0.0	0	0.0	318	0.0	0	0.0	28	0.0	0	0.0
Hurricane Lamp	13,211	18.9	13,085	18.7	8,577	12.3	14,503	20.8	12,090	17.3	4,798	6.9	3,595	5.1	69,859	100.0
Pressure Lamp	796	5.9	2,114	15.7	1,538	11.4	1,734	12.9	4,990	37.0	1,485	11.0	817	6.1	13,474	100.0
Wick Lamp	18,245	7.3	39,921	16.0	35,084	14.0	47,838	19.1	73,828	29.5	26,951	10.8	8,400	3.4	250,269	100.0
Candles	256	51.6	111	22.4	103	20.8	0	0.0	0	0.0	26,951	0.0	26	5.3	496	100.0
Firewood	0	0.0	0	0.0	0	0.0	0	0.0	1,486	71.1	240	11.5	55	2.7	2,090	100.0
Other	0	0.0	258	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	258	100.0
Total	32,909	10	56,361	16.6	45,504	13.4	64,661	19.0	93,286	27.5	61,084	18	12,951	3.8	339,766	100.0

34.6 HOUSEHOLD FACILITIES: Number of Agricultural Households by Main Source of Energy Used for Cooking during 2002/03 Agricultural Year

Main Source of Energy for Cooking	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Mains Electricity	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Solar	0	0.0	0	0.0	0	0.0	0	0.0	152	100.0	0	0.0	0	0.0	152	100.0
Gas (Biogas)	0	0.0	111	55.2	0	0.0	0	0.0	0	0.0	90	44.8	0	0.0	201	100.0
Bottled Gas	167	54.6	139	45.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	306	100.0
Paraffin / Kerosene	0	0.0	210	70.5	0	0.0	0	0.0	0	0.0	88	29.5	0	0.0	298	100.0
Charcoal	822	8.4	282	2.9	995	10.2	2,693	27.5	3,285	33.6	916	9.4	787	8.0	9,781	100.0
Firewood	31,776	9.7	54,943	16.7	44,716	13.6	61,968	18.9	89,703	27.3	32,832	10.0	12,085	3.7	328,022	100.0
Crop Residues	0	0.0	0	0.0	102	62.4	0	0.0	0	0.0	61	37.6	0	0.0	163	100.0
Livestock Dung	0	0.0	138	100.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	138	100.0
Total	32,765	9.7	55,823	16.5	45,813	13.5	64,661	19.1	93,140	27.5	33,987	10.0	12,872	3.8	339,061	100.0

34.7 HOUSEHOLD FACILITIES: Number of Agricultural Households by Main Source of Drinking Water by Season (LONG and Short) and District during 2002/03 Agricultural Year

Source	Season	District							Total
		Ukerewe	Magu	Kwimba	Sengerema	Geita	Missungwi	Ilemela	
Piped Water	wet season	816	6,920	9,220	812	962	1,075	1,215	21,020
	dry season	330	8,174	11,691	729	7,865	1,742	1,161	31,692
Protected Well	wet season	11,498	23,121	24,137	15,444	166	7,633	5,983	87,982
	Dry season	9,594	24,259	19,302	13,913	8,530	8,697	5,823	90,118
Protected / Covered Spring	wet season	1,363	1,853	610	2,647	64,351	1,377	1,054	73,254
	Dry season	1,615	2,004	507	2,179	0	2,542	994	9,841
Uprotected Well	wet season	9,626	10,634	10,051	36,025	15,128	6,798	2,819	91,081
	Dry season	9,367	11,336	5,210	36,025	64,375	14,094	2,723	143,130
Unprotected Spring	wet season	3,139	1,727	4,604	4,220	1,711	954	305	16,660
	Dry season	2,842	1,187	2,844	2,198	15,151	5,363	906	30,491
Surface Water (Lake / Dam / River / Stream)	wet season	6,313	6,151	502	575	470	0	247	14,258
	Dry season	9,083	7,893	1,010	7,482	2,010	1,456	510	29,444
Covered Rainwater Catchment	wet season	0	691	206	575	2,319	3,641	442	7,874
	Dry season	0	274	1,320	0	470	79	262	2,405
Uncovered Rainwater Catchment	wet season	154	3,896	0	2,608	2,319	69	0	9,047
	Dry season	77	693	210	592	1,657	69	0	3,299
Water Vendor	wet season	0	0	0	0	315	0	0	315
	Dry season	0	0	0	133	147	0	102	382
Tanker Truck	wet season	0	0	0	0	0	0	0	0
	Dry season	0	0	0	0	0	0	0	0
Bottled Water	wet season	0	0	0	0	0	0	0	0
	Dry season	0	0	0	0	0	0	0	0
Other	wet season	0	1,367	0	0	0	0	0	1,367
	dry season	0	541	0	133	0	0	0	674
Total Agricultural Households per District		65,817	112,721	91,423	126,289	187,944	55,591	24,545	664,331

34.8 HOUSEHOLD FACILITIES: Proportion of Agricultural Households by Main Source of Drinking Water by Season (LONG and Short) and District during 2002/03 Agricultural Year

Source	Season	District							Total
		Ukerewe	Magu	Kwimba	Sengerema	Geita	Missungwi	Ilemela	
Piped Water	wet season	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2
	dry season	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.3
Protected Well	wet season	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.8
	Dry season	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.8
Protected / Covered Spring	wet season	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6
	Dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Uprotected Well	wet season	0.1	0.1	0.1	0.3	0.1	0.1	0.0	0.8
	Dry season	0.1	0.1	0.0	0.3	0.6	0.1	0.0	1.3
Unprotected Spring	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Dry season	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3
Surface Water (Lake / Dam / River / Stream)	wet season	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
	Dry season	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.3
Covered Rainwater Catchment	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncovered Rainwater Catchment	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water Vendor	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanker Truck	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bottled Water	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	wet season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	dry season	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

34.9 HOUSEHOLD FACILITIES: Number of Households Reporting Time Spent to and from Main Source of Drinking Water by Season (Wet and Dry) by District for 2002/03 agriculture year

Time Spent to and from Main Source of Drinking Water	Season	District						
		Ukerewe	Magu	Kwimba	Sengerema	Geita	Missungwi	Ilemela
Less than 10	wet season	250	6,521	600	3,222	1,706	735	180
	Dry season	403	1,490	289	1,525	1,875	409	329
10 - 19 Minutes	wet season	5,423	7,506	7,246	17,615	19,065	9,122	1,977
	Dry season	5,011	6,273	4,372	14,250	15,707	6,152	1,691
20 - 29 Minutes	wet season	10,742	5,817	3,915	7,430	12,656	7,064	1,416
	Dry season	9,110	6,408	2,638	6,684	11,035	5,602	1,207
30 - 39 Minutes	wet season	4,775	15,571	19,530	20,718	32,408	6,863	4,378
	Dry season	4,530	15,744	16,056	16,753	29,162	5,291	4,239
40 - 49 Minutes	wet season	6,891	2,499	4,302	3,636	5,524	3,859	1,072
	Dry season	7,371	3,387	4,688	4,218	6,838	5,100	1,279
50 - 59 Minutes	wet season	739	3,845	719	3,560	3,469	2,521	413
	Dry season	729	2,580	617	2,693	3,403	1,982	322
above one Hour	wet season	4,089	14,601	9,501	8,479	18,458	3,968	3,486
	Dry season	5,755	20,479	17,152	18,537	25,267	9,596	3,855

34.10 HOUSEHOLD FACILITIES: Proportion of Households Reporting Time Spent to and from Main Source of Drinking Water by Season (Wet and Dry) by District for 2002/03 agriculture year

Time Spent to and from Main Source of Drinking Water	Season	District						
		Ukerewe	Magu	Kwimba	Sengerema	Geita	Missungwi	Ilemela
Less than 10	wet season	0.6	4.4	2.1	2.1	0.9	1.8	0.5
	Dry season	0.1	0.2	0.0	0.1	0.1	0.0	0.2
10 - 19 Minutes	wet season	1.1	1.2	1.7	1.2	1.2	1.5	1.2
	Dry season	0.5	1.1	1.1	1.9	1.2	0.9	1.2
20 - 29 Minutes	wet season	1.2	0.9	1.5	1.1	1.1	1.3	1.2
	Dry season	1.9	0.4	0.1	0.3	0.3	0.8	0.3
30 - 39 Minutes	wet season	1.1	1.0	1.2	1.2	1.1	1.3	1.0
	Dry season	0.7	6.3	3.7	4.6	5.3	1.4	4.0
40 - 49 Minutes	wet season	0.9	0.7	0.9	0.9	0.8	0.8	0.8
	Dry season	10.0	0.9	6.5	1.2	2.0	2.0	3.1
50 - 59 Minutes	wet season	1.0	1.5	1.2	1.3	1.0	1.3	1.3
	Dry season	0.2	0.2	0.1	0.3	0.2	0.5	0.1
above one Hour	wet season	0.7	0.7	0.6	0.5	0.7	0.4	0.9
	Dry season	0.7	0.7	0.6	0.5	0.7	0.4	0.9

34.11 HOUSEHOLD FACILITIES: Number of Agricultural Households by Number of Meals the Household Normally Took per Day by District

Number of Meals per Day	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
One	83	0.3	1,488	2.6	206	0.4	304	0.5	2,123	2.3	574	1.7	468	3.6	5,246	1.5
Two	30,548	92.8	41,378	73.4	22,895	50.0	46,480	71.9	76,687	82.2	17,365	50.9	10,323	79.9	245,676	72.2
Three	2,125	6.5	13,246	23.5	22,612	49.4	17,877	27.6	13,843	14.8	15,787	46.3	2,132	16.5	87,622	25.8
Four	153	0.5	247	0.4	100	0.2	0	0.0	634	0.7	406	1.2	0	0.0	1,541	0.5
Total	32,909	100	56,360	100	45,813	100	64,662	100	93,287	100	34,132	100	12,923	100	340,085	100

34.12 HOUSEHOLD FACILITIES: Number of Households by Number of Days the Household Consumed Meat during the Preceding Week by District

Number of Days	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Not Eaten	12,883	39.1	24,621	43.7	18,731	40.9	25,602	39.6	28,904	31.0	13,598	20.0	4,523	35.0	128,863	37.9
One	9,668	29.4	20,003	35.5	17,957	39.2	17,667	27.3	33,828	36.3	12,927	19.0	4,897	37.9	116,948	34.4
Two	6,241	19.0	8,173	14.5	7,215	15.7	15,732	24.3	19,798	21.2	4,166	6.1	2,295	17.8	63,621	18.7
Three	2,773	8.4	1,917	3.4	1,497	3.3	3,819	5.9	5,911	6.3	2,353	3.5	801	6.2	19,072	5.6
Four	889	2.7	912	1.6	310	0.7	1,120	1.7	2,880	3.1	591	0.9	289	2.2	6,991	2.1
Five	301	0.9	262	0.5	0	0.0	308	0.5	1,192	1.3	407	0.6	117	0.9	2,588	0.8
Six	68	0.2	222	0.4	103	0.2	0	0.0	321	0.3	0	0.0	0	0.0	714	0.2
Seven	85	0.3	250	0.4	0	0.0	413	0.6	452	0.5	34,043	50.0	0	0.0	1,289	0.4
Total	32,909	100.0	56,360	100.0	45,813	100.0	64,661	100.0	93,286	100.0	68,086	100.0	12,922	100.0	340,085	100.0

34.13 HOUSEHOLD FACILITIES: Number of Households by Number of Days the Household Consumed Fish during the Preceding Week by District

Number of Days	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Not Eaten	313	1.0	3,770	6.7	10,220	22.3	1,486	2.3	13,862	14.9	6,819	20.0	101	0.8	36,572	10.8
One	1,947	5.9	9,403	16.7	13,590	29.7	3,899	6.0	22,826	24.5	6,992	20.5	477	3.7	59,135	17.4
Two	2,311	7.0	12,882	22.9	7,921	17.3	7,137	11.0	19,924	21.4	7,742	22.7	1,883	14.6	59,801	17.6
Three	1,312	4.0	9,580	17.0	6,373	13.9	10,323	16.0	15,766	16.9	5,906	17.3	2,721	21.1	51,980	15.3
Four	5,263	16.0	6,316	11.2	3,439	7.5	10,306	15.9	8,868	9.5	3,035	8.9	3,529	27.3	40,755	12.0
Five	5,696	17.3	5,140	9.1	2,646	5.8	11,737	18.2	6,972	7.5	1,709	5.0	1,392	10.8	35,292	10.4
Six	6,463	19.6	3,058	5.4	912	2.0	5,910	9.1	3,082	3.3	419	1.2	1,389	10.8	21,234	6.2
Seven	9,604	29.2	6,210	11.0	713	1.6	13,863	21.4	1,985	2.1	1,510	4.4	1,430	11.1	35,316	10.4
Total	32,909	100.0	56,360	100.0	45,813	100.0	64,661	100.0	93,286	100.0	34,132	100.0	12,922	100.0	340,085	100.0

34.14 HOUSEHOLD FACILITIES: Number of Households Reporting the Status of Food Satisfaction of the Household during the Preceding Year by District

Status of Food Satisfaction	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela			
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%
Never	19,097	58.0	19,592	36.9	11,090	24.2	46,221	71.5	60,006	64.3	15,403	45.1	6,282	48.6	177,692	52.8
Seldom	8,175	24.8	21,084	39.8	15,932	34.8	12,964	20.0	20,892	22.4	8,330	24.4	4,723	36.5	92,100	27.3
Sometimes	1,439	4.4	4	0.0	3,821	8.3	1,403	2.2	4,110	4.4	1,352	4.0	484	3.7	12,614	3.7
Often	2,520	7.7	7,965	15.0	9,557	20.9	3,070	4.7	4,263	4.6	5,688	16.7	746	5.8	33,808	10.0
Always	1,677	5.1	4,379	8.3	5,414	11.8	1,003	1.6	4,016	4.3	3,358	9.8	688	5.3	20,534	6.1
Total	32,909	100.0	53,024	100.0	45,813	100.0	64,661	100.0	93,286	100.0	34,132	100.0	12,922	100.0	336,748	100.0

34.15 HOUSEHOLD FACILITIES: Number of Households by Type of Roofing Materials and District during the 2002/03 Agricultural Year

Roofing Materials	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela		Number of Households	%
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%		
Iron Sheets	18,980	14	25,778	19	11,596	9	28,437	21	36,512	27	8,027	6	6,317	5	135,648	100
Tiles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concrete	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Asbestos	166	9	1,187	66	92	5	0	0	305	17	0	0	58	3	1,809	100
Grass / Leaves	11,859	7	23,200	14	27,271	16	31,889	19	42,764	26	25,401	15	5,210	3	167,594	100
Grass & Mud	1,903	6	5,835	19	6,755	22	4,078	13	10,513	34	615	2	1,081	4	30,779	100
Other	0	0	0	0	0	0	0	0	585	100	0	0	0	0	585	100
Total	32,909	10	56,000	17	45,714	14	64,404	0	90,680	27	34,043	10	12,665	4	336,415	100

34.16 HOUSEHOLD FACILITIES: Number of Households by Main Source of Cash Income and District during 2002/03 Agriculture Year

Main Source of Energy for Cooking	District														Total	
	Ukerewe		Magu		Kwimba		Sengerema		Geita		Missungwi		Ilemela		Number of Households	%
	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%	Number of Households	%		
Sales of Food Crops	10,905	12	7,649	8	13,633	15	17,764	19	29,946	32	10,367	11	2,348	3	92,612	100
Sale of Livestock	1,234	8	2,728	18	2,940	19	3,020	20	2,074	14	3,078	20	111	1	15,186	100
Sale of Livestock Products	340	6	1,330	22	0	0	1,562	26	1,575	26	879	14	406	7	6,092	100
Sales of Cash Crops	1,306	2	20,153	37	6,343	12	6,728	12	14,484	27	3,392	6	1,439	3	53,844	100
Sale of Forest Products	223	3	742	10	305	4	1,388	18	2,818	36	1,456	19	856	11	7,788	100
Business Income	2,529	8	1,350	4	3,283	10	10,340	31	9,414	28	4,269	13	2,343	7	33,528	100
Wages & Salaries in Cash	1,522	11	1,293	9	1,924	14	2,950	21	3,080	22	1,974	14	1,071	8	13,813	100
Other Casual Cash Earnings	3,934	6	14,540	20	15,043	21	6,935	10	21,931	31	6,679	9	2,102	3	71,164	100
Cash Remittance	1,781	12	3,564	25	2,342	16	3,902	27	2,028	14	341	2	444	3	14,404	100
Fishing	8,979	32	3,012	11	0	0	9,921	36	2,693	10	1,518	5	1,647	6	27,769	100
Other	157	4	0	0	45,813	1,206	3,158	83	179	5	179	5	155	4	3,800	100
Total	32,909	10	56,360	17	91,626	27	67,668	20	90,223	27	34,132	10	12,922	4	339,999	100

APPENDIX III QUESTIONNAIRES

UNITED REPUBLIC OF TANZANIA

Confidential



Page Number

Agriculture Sample Census 2002/03



ACLF 1: Sub-village leader listing form

Region _____ Code	<input type="text"/> <input type="text"/>	Ward _____ Code	<input type="text"/> <input type="text"/>
District _____ Code	<input type="text"/> <input type="text"/>	Village _____ Code	<input type="text"/> <input type="text"/>

Name of Village Chairman:.....

Sub-village leader number	Name of sub-village leader	Number of households		Comments
		From office register	After enumeration	
(1)	(2)	(3)	(4)	(5)
<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	
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<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	
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<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	
<input type="text"/>		<input type="text"/>	<input type="text"/>	
Total		<input type="text"/>	<input type="text"/>	

Name of enumerator..... Signature Date.....

Name of supervisor..... Signature Date.....

UNITED REPUBLIC OF TANZANIA



Confidential

Interval
Starting point

Page Number.....

Agriculture Sample Census 2002/03

ACLF: 2 Household listing form - form for listing household heads and their agriculture activities

Region _____	Code <input style="width: 20px;" type="text"/>	Name of Sub-village Leader _____
District _____	Code <input style="width: 20px;" type="text"/>	Subvillage leader code <input style="width: 20px;" type="text"/>
Ward _____	Code <input style="width: 20px;" type="text"/>	
Village _____	Code <input style="width: 20px;" type="text"/>	Name of Sub-village _____



Household Number	Household head name	Number of										✓ if the respondent qualifies to be a farmer *	Farmer Serial Numbers
		Fields +	Cattle				Goats	Sheep	Pigs	poultry/ducks	Rabbit		
			Total Number	Adult male cattle	Adult female cattle	Calves							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<input style="width: 20px;" type="text"/>													
<input style="width: 20px;" type="text"/>													
<input style="width: 20px;" type="text"/>													
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<input style="width: 20px;" type="text"/>													
<input style="width: 20px;" type="text"/>													
<input style="width: 20px;" type="text"/>													
Totals													

* **NOTE:** (Column 13) Place a "✓" if the household has at least 1 field over 25m² and/or keeps at least 1 Cow, 5 Goats/Sheep/Pigs or 50 Chicken/poultry or ducks

+ (Column 3) A field must be at least 25 m²

Name of enumerator..... Signature Date.....

Name of supervisor..... Signature Date.....

UNITED REPUBLIC OF TANZANIA



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National Agriculture Sample Census 2002/03

ACLF: 3 Household listing of 15 selected farmers

Region _____
 District _____
 Ward _____
 Village _____

Code
 Code
 Code
 Code






S/N	Sub village leader number		Name of sub-village leader	Agriculture hh serial number	Name of selected head of household	Number of							
	(1)	(2)				(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
01				<input type="text"/> <input type="text"/> <input type="text"/>									
02				<input type="text"/> <input type="text"/> <input type="text"/>									
03				<input type="text"/> <input type="text"/> <input type="text"/>									
04				<input type="text"/> <input type="text"/> <input type="text"/>									
05				<input type="text"/> <input type="text"/> <input type="text"/>									
06				<input type="text"/> <input type="text"/> <input type="text"/>									
07				<input type="text"/> <input type="text"/> <input type="text"/>									
08				<input type="text"/> <input type="text"/> <input type="text"/>									
09				<input type="text"/> <input type="text"/> <input type="text"/>									
10				<input type="text"/> <input type="text"/> <input type="text"/>									
11				<input type="text"/> <input type="text"/> <input type="text"/>									
12				<input type="text"/> <input type="text"/> <input type="text"/>									
13				<input type="text"/> <input type="text"/> <input type="text"/>									
14				<input type="text"/> <input type="text"/> <input type="text"/>									
15				<input type="text"/> <input type="text"/> <input type="text"/>									

Name of Enumerator: _____ Signature _____ Date _____

Name of Supervisor _____ Signature _____ Date _____

Ministry of Agriculture and Food Security, Ministry of Water and Livestock Development, Ministry of
 Cooperatives and Marketing and the National Bureau of Statistics

United Republic of Tanzania	
ACQ 1	
CONFIDENTIAL	
Small holder/Small Scale Farmer Questionnaire	
Agriculture Sample Census	
2002/2003	
	

Enumerator	Name	Signature									
	<input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Hour</td> <td style="width: 50%; text-align: center;">Minutes</td> </tr> <tr> <td style="text-align: center;"> <input type="text"/> <input type="text"/> </td> <td style="text-align: center;"> <input type="text"/> <input type="text"/> </td> </tr> <tr> <td style="text-align: center;">Start time</td> <td style="text-align: center;">End time</td> </tr> <tr> <td style="text-align: center;"> <input type="text"/> <input type="text"/> </td> <td style="text-align: center;"> <input type="text"/> <input type="text"/> </td> </tr> </table>	Hour	Minutes	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	Start time	End time	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
Hour	Minutes										
<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>										
Start time	End time										
<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>										
Field level checking by:			<i>To be completed by the supervisor ONLY after field/farm level checking of the enumeration process. This should be countersigned by the enumerator.</i>								
District Supervisor:	Name	signature									
Regional Supervisor:	Name	signature									
National Supervisor:	Name	signature									
District checking in Office:			<i>All questionnaires must be checked at the district office.</i>								
District Supervisor	Name	signature									
For Use at National Level only:			<i>See back page for details of query</i>								
Data Entered by	Name	signature									
Queried	Name	signature									

Executed by the Ministry of Agriculture and Food Security, Ministry of Water and Livestock Development,
 Ministry of Cooperatives and Marketing
 and
 National Bureau of Statistics

1.0 IDENTIFICATION DETAILS			
1.1 Location			
S/N	Location Name	Codes	
1.1.1	Region	<input type="text"/> <input type="text"/>	
1.1.2	District	<input type="text"/>	
1.1.3	Ward	<input type="text"/> <input type="text"/> <input type="text"/>	
1.1.4	Village	<input type="text"/> <input type="text"/>	
1.2 Details of the respondent and household head			
S/N		Codes	
1.2.1	Name & number of local leader	<input type="text"/> <input type="text"/> <input type="text"/>	
1.2.2	Name & number of household head	<input type="text"/> <input type="text"/>	
1.2.3	Sex of household head (Male = 1, Female = 2)	<input type="text"/> <input type="text"/>	
1.2.4	Name of respondent	<input type="text"/> <input type="text"/>	
1.2.5	Relationship of Respondent to Household Head		
<p>Relationship to household head codes (Q 1.2.5) Head of Household.....1 Son/Daughter3 Grandson/Granddaughter5 Other (friend, employee, etc)...8 Spouse2 Father/Mother4 Other relative.....6</p>			
2.0 ACTIVITIES OF THE HOUSEHOLD			
2.1	Type of Agriculture Household	<input type="text"/>	
<p>Agriculture household codes(Q2.1) Crops only.....1 Livestock only2 Pastoralist.....3 Crops and Livestock4</p>			
2.2	Rank the following livelihood activities/source of income of the household in order of importance		
S/N	Livelihood/source of income activity.	Rank in order of importance 1=most 7=least	How important are each of these activities expressed in percentage.
	(1)	(2)	(3)
2.2.1	Annual Crop farming	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.2	Permanent crop farming	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.3	Livestock keeping/herding	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.4	Off Farm Income	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.5	Remittances	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.6	Fishing/hunting and gathering	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
2.2.7	Tree/forest resources (eg honey, firewood, timber,etc)	<input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/> %
			<input type="text"/> <input type="text"/> <input type="text"/> %

Definition and working page for page 1**General Definitions****Small holder hh/small scale farm:**

Should have between 25sq metres and 20 Hectares under production, and/or between 1 and 50 head of Cattle, and/or between 5 and 100 head of Sheep/Goats/Pigs, and/or between 50 and 1000 chickens/turkeys/ducks/rabbits.

Household: A group of people who occupy the whole or part of one or more housing units and makes joint provisions for food and/or other essentials for living.

Household Head: A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for making decisions.

Agricultural Holding: This is an economic unit of agricultural production under single management. It consists of all livestock kept and all land used for agricultural production without regard to title. For the purpose of this survey, the agricultural holdings are restricted to those which meet one of the following conditions:

- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/pigs or fifty chicken/ducks/turkeys during the agricultural year 2002/03 (October 2002 to September 2003) .

Question Specific Definitions:**Type of Agriculture Holdings Codes (Q2.1):**

- **Crops only:** A holding is referred to be a crops only holding if it has cultivated a piece of land equal or exceeding 25 sq Meter. This also applies to all households owning or have kept livestock whose number does not qualify such household to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/ducks/rabbits)

- **Livestock only:** A holding is referred to be a Livestock only holding if it has exercised Livestock husbandry only during the agricultural year. The livestock can be herded in search for areas of pasture, but the core household unit always remains in the same place and the herder is rarely away from this place for long periods at a time.

- **Livestock pastoralism:** This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

For both livestock only and pastoralism , the number of livestock has to be at least 1 head of cattle, 5 goats/sheep/pigs or 50 chickens/turkeys/ ducks/rabbits. This also applies to all households owning or have cultivated a piece of land less than 25 sq meter, which does not qualify such household be an agricultural holding.

- **Both crops and livestock:** A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households is owning or have kept livestock whose number qualify such household be an agricultural holding.

Important livelihood activities/source of income (Q 2.2):

- **Crop farming:** This refers to a household where crop production is its major means of subsistence and income generation.

- **Livestock farming/herding/pastoralism:** This refers to a household where livestock farming/herding is its major means of subsistence & income generation.

- **Off Farm Income** This refers to cash generated from activities other than from the households holding. This can be from permanent employment (eg government/other), temporary employment/labouring and includes cash generated from working on other farmers farms.

-**Remittances:** Assistance from family members who are not currently part of the household, or from a relative or family friend. This assistance is usually in the form of cash but it can also be in-kind (eg food, clothes, building material, farm tools, etc). The money is a gift and is not paid back.

-**Fishing/hunting and gathering** The use of non farmed resources for food eg fishing, hunting wildlife and gathering mushrooms, berries, wild honey roots from uncultivated land.

Procedures for Questions:**Q 2.1 Type of agriculture household/holding**

1. Using the options under the question classify the type of agriculture hh/holding

Note: If the hh had 1 acre of crops and raised 40 chickens during 2002/03 it is classified as '**Crops only**' as the number of chickens do not qualify the hh as keeping livestock.

Q 2.2 Important hh livelihood activities /source of income

1. Read the list in column 1 to the respondent and ask him to rank them in order of importance during the reference year.

2. In column 2 Indicate the importance of each activity by placing '1' against the most important, '2' against the second most important, etc until you reach '7' the least important activity/source of income.

Note: You must attempt to fill in all boxes. Most households will carry out these activities to a greater or lesser degree. You will normally have to probe to get remittances.

If the hh did not undertake an activity during the 2002/2003 agriculture year then mark the appropriate box in column 2 with an 'X'.

3. For each activity/source of income assign a percentage. The enumerator should assist the respondent in assigning the percentage based on the information provided by the farmer.

4. After completing column 3 make sure the percentages add up to 100.

Note: It is not essential to be 100% accurate. This question is just to give the relative importance of the different items in general terms

3.0 HOUSEHOLD INFORMATION

3.1 Give details of personal **particulars** of all household members beginning with the head of the household

S/N	Names of household members	Relation-ship to head	Sex M=1 F=2	Age (if age is above 99 years then write 99)	Survival of Parents		Read & Write	Edu- cation Status	Education Level reached	Invol- vemen in farmin	Main activity (for aged 5 & above)	Off-farm Income Yes=1 No=2
					Mo- ther	Fa- ther						
					(5)	(6)						
3.1.1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Not applicable for children under 5 years of age

- Relation to head (Col 2)**
 Head of household1
 Spouse2
 Son/daughter3
 Father/Mother4
 Grandson/granddaughter .5
 Other Relative6
 Others8

- Education Status (Col 8)**
 Attending School1
 Completed2
 Never attended School3

- Involvement in farming activities (Col 10)**
 Works full time on farm ...1
 Works part-time on farm 2
 Rarely works on farm3
 Never works on farm.....4

- Main activity (Col 11)**
 Crop Farming01
 Livestock Keeping/Herding..02
 Livestock Pastoralism.....03
 Fishing04
 Paid employment:
 - Government/parastatal05
 - Private- NGO/mission/etc .06
 Self employed (non farming)
 - with employees07
 - without employees08
 Unpaid family helper (non agriculture)09
 Not working & available.....10
 Not working & unavailable...11
 Housemaker/housewife12
 Student13
 Unable to work /too old/
 Retired/sick/disabled).....14
 Other98

- Survival of Parents (Col 5 & 6)**
 Yes1
 No2
 Don't know3

- Education Level Reached (Col 9)**
- | | |
|--|---|
| Primary Education | Secondary Education |
| Not of school ageNA | Form one11 |
| Under Standard One 00 | Form two12 |
| Standard One01 | Form three13 |
| Standard Two02 | Form four14 |
| Standard Three03 | Form five15 |
| Standard Four04 | Form six16 |
| Standard Five05 | Training after Secondary Education17 |
| Standard Six06 | University & other tertiary Education18 |
| Standard Seven07 | Adult Education19 |
| Standard Eight08 | Not applicable99 |
| Training after Primary Education09 | |
| Pre Form One10 | |

- Read & Write (Col 7)**
 Swahili1
 English2
 Swahili & English3
 Any other language4
 Don't Read/ Write5

Definition and working page for page 2**Question Specific Definitions:****Relation to head (Col 2):**

- **Household Head:** A person who is acknowledged by all other members of the household either by virtue of their age or standing as the household head.

Read and Write (Col 7):

- **Any other language:** Must be a written language.

For someone who can read and write in Swahili and any other language apart from English, the correct code is 1. For one who can read and write in English and any other language apart from Swahili the correct code is 2. Code 4 should only be used for another language but not English or Swahili

Education Level Reached (Col 9):

Indicate the highest level only. For those still attending school fill in the last year reached before the survey period. For example if a hh member is currently in standard 7 this year his highest grade reached is standard 6

Main Activity (Col 11):

- **Crop farming:** The persons main activity is crop production. This can be annual crops, vegetables, permanent crops or tree farming.

- **Livestock farming/herding:** The persons main activity is livestock farming/herding. The livestock can be herded in search for areas of pasture, but the core household unit always remains in the same place and the herder is rarely away from this place for long periods at a time. This category also includes fish farming but not fishing.

- **Livestock pastoralism:** The persons main activity is in moving livestock from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they may have no permanent place of residence.

- **Paid employment** - In full time employment earning a cash income

- Government/Parastatal - In full time employment for a government Ministry, Department or Board that is controlled by the Government
- Private/NGO/Mission/etc - employed by Non public/government organisation

- **Self employee** - works for own business for cash income

- With employees - Works for own business for cash and employs other workers

- Without employees - Works for own business for cash but does not employ other workers

- **Not working but available to work** - No productive activity but would like to have one.

- **Not working & nor available for work** - No productive activity and does not want to have one.

- **Unable to work** too old, too young, retired, disabled, etc

Off-farm Income (Col 12) - Income made from activities NOT on the HH's farming activities. This can be any off farm income generation activity and includes working for cash on other peoples farms.

Indicate whether each member was involved in an off farm income generating activity during 2002/03

Overview to section 3.0**Section 3.0 - Preliminary note**

1. Make sure that you define the hh properly to ensure that all the members of the hh are included. Make sure you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.

2. If you notice that his house is large or you see many people around his house and he has only given you small number of hh members enquire further until you are sure that you have captured all the hh members.

Procedures for questions**Section 3.0 - Household Information**

1. For each household member complete columns 1, 2 & 3.

2. After completing columns 1, 2 & 3 for each household member go back to the first household member and complete the remaining columns for that member.

3. Repeat step 2 for the rest of the household members

IMPORTANT NOTE:

Cross check responses in columns 11 and 12 with section 2 especially in relation to:

off-farm income - if a hh member was involved in off farm income then there should be a response in question 2.2.4 and vice versa.

4.0 LAND ACCESS/OWNERSHIP/TENURE			
4.1 Details of area "owned" by the household in the 2002/03 agricultural year. Give area reported by the respondent in "acres".		Area in Acres	
4.1.1	Area Leased/Certificate of ownership	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.2 Was all land available to the hh used during 2002/03 (Yes=1, No=2) <input type="checkbox"/>
4.1.2	Area owned under Customary Law	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.3	Area Bought from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.3 Do you consider that you have sufficient land for the hh (Yes=1, No=2) <input type="checkbox"/>
4.1.4	Area Rented from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.5	Area Borrowed from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	4.4 Do any female members of the hh own or have customary right to land (Yes=1, No=2) <input type="checkbox"/>
4.1.6	Area Share -cropped from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
4.1.7	Area under Other forms of tenure	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	

5.0 LAND USE			
5.1 Area operated by household under different forms of land use during 2002/03 agriculture year. Give area reported by the respondent in "acres".		Area in Acres	
			Calculation area
5.1.1	Area under Temporary Mono-crops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.2	Area under Temporary Mixed crops (eg Maize & beans)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.3	Area under Permanent Mono-crops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.4	Area under Permanent Mixed crops (eg bananas, coffee & trees)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.5	Area under Permanent/temporary mix (eg bananas & maize)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.6	Area under Pasture	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.7	Area under Fallow	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.8	Area under Natural Bush	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.9	Area under Planted Trees	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.10	Area Rented to others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.11	Area Unusable	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
5.1.12	Area of Uncultivated Usable land (excluding fallow)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> <input type="text"/>	

6.0 ACCESS AND USE OF RESOURCES

6.1 In the following table indicate the distance to the different fields used by the household

S/N	Field Number	Distance (in kilometres) from field to:			Distance codes less than 100m1 between 2 and 3km6 between 100 and 300m ..2 between 3 and 5km7 between 300 and 500m ..3 between 5 and 10 km ..8 between 500 and 1km....4 Over 10 km9 between 1 and 2km5
		Homestead	Nearest road	Nearest Market	
6.1.1	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	
6.1.2	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	
6.1.3	3	<input type="text"/>	<input type="text"/>	<input type="text"/>	

6.2 In the following table indicate the distance and use of the following communal resources

S/N	Communal Resource	Distance to resource (km)		Main hh use	Instructions for distance to resource (Col 2 and 3): If under 1km, write 0 If above 1km round to whole numbers eg 1.5km= 2km, 1.25km= 1km
		dry season	wet season		
	(1)	(2)	(3)	(4)	
6.2.1	Water for humans	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	Main hh use (Col 4) Home or farm Consumption/utilisation.....1 Sold to Neighbours.....2 Sold to trader on the farm.....3 Sold to village market4 Sold to local wholesale market.....5 Sold to major wholesale market6 Not used by household.....7 Not available8
6.2.2	Water for livestock	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.3	Communal Grazing	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.4	Communal Firewood	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.5	Wood for Charcoal	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.6	Building poles	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.7	Forest for bees (honey)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.8	Hunting (animal products)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	
6.2.9	Fishing (Fish)	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	

Definition and working page for page 3

Question Specific Definitions

Section 4.1 - Land Access/Ownership

Lease/Certificate of Ownership Area under lease/certificate of ownership refers to the area for which the household possesses a government issued leasehold title or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

Customary Law: This refers to the land which the hh does not have an official government title to but its right of use is granted by the traditional leaders. This user-right agreement does not have to be granted directly by the village leaders as right of access may be passed on through heredity.

Bought: This refers to the area of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.

Rented from others: Land rented from others for Cash or for a fixed amount in crop produce (eg fixed number of bags at harvest).

Borrowed: Use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.

Share Cropping: where the hh is permitted to use land which is then paid for from a percentage of the harvested crop.

Section 5.0 Land Use

- **Temporary crops:** are sown and harvested during the same agricultural year

- **Permanent crops:** are sown or planted once and then , they occupy the land for some years and need not to be replanted after each annual harvest. Permanent crops are mainly trees (e.g., apples) but also bushes and shrubs (e.g., berries), palms (e.g., dates), vines (e.g., grapes), herbaceous stems (e.g., bananas) and stemless plants (e.g., pineapples).

- **Mixed Crops:** This is a mixture of two or more crops planted together and mixed in the same plot/field. The two crops can either be randomly planted together or they can be planted in a particular pattern eg intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed. This is further subdivided into:

Permanent Mixed -two or more permanent crops grown together,
Permanent/Temporary Mix - permanent crop and annual crop together,
Temporary Mixed - two or more temporary, annual crops grown together.

- **Pasture Land:** This is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or applied other production increasing technologies to improve the grazing. Or it can be rough pasture.

- **Fallow:** This is the area of land that is normally used for crop production, but is not used for crop production during a year or a number of years. This is normally to allow for self generation of fertility/soil structure and is often an integral part of the crop rotation system.

- **Natural Bush:** Land which is considered productive but is not under cultivation or used extensively for livestock production and has naturally growing shrubs and trees.

- **Planted trees:** Land which is used for planting trees for poles or timber

- **Unusable:** Land that is known to be non-productive for agriculture purposes

Uncultivated Usable: This is land that was not used for reasons other than fallow. The reasons could be lack of inputs/money/rainfall/etc

Distance to fields (Q6.1):

-**fields** A field is a contiguous piece of land holding which the farmer considers as a single entity. The field may be divided into plots for growing different crops. A holding may consist of one or more fields in different localities.

Use of Communal Resources (Q6.2):

-**Communal resources** - refers to the place on which all individual households can have access to. It is not individually owned or controlled by one hh.

NOTE: The listed resources refers to communal resources and not those individually owned or part shared. The resource has to be freely accessible to the whole village

Overview to section 4

Section 4.0 - Preliminary note Land Access/ Ownership

Access/Ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between households. It does include official communal land that the hh has sole access to eg a plot for crop farming in the communal area.

Procedures for Questions

Section 4.0 - Land Ownership

1. Ask the respondent if he knows the total area of land the household has sole access to. If he knows make a note in the calculation space
2. Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1.1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information).
4. If the total area is different find out which one is correct and make amendments where appropriate.

Section 5.0 - Land Use

1. Ask the respondent the area of the different landuse categories the household has sole access to (Q5.1.1 to 5.1.12) and record in the appropriate spaces.
2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total area should be the same.
3. If the total area is different find out which one is correct and make amendments where appropriate.

Section 6.2 Communal resources

Note: the code "Not available" means that the resource does not exist. The code "Not Used" means that the resource does exist but is not used by the hh.

7.0 ANNUAL CROP AND VEGETABLE PRODUCTION - SHORT RAINY SEASON

7.1.1 Did the hh **plant** any crops during the **Short Rainy** season? (Yes = 1, No=2) *If the response is 'NO' give main reason Then go to section 7.2*

Main Reason (Above) No rains.....1 Rains came too late2 Does not plant annual crops3
 No money 4 Don't get Vuli season ..5 Illness/social problems6
 Has irrigation & does not follow season (give annual production in Masika)7

7.1.2 For each crop planted during 2002/03 **Short Rainy** season provide the following information

Crop Name	Crop Code	Land clearing	Soil preparation	Planting		Inputs						Harvesting & Storage				Marketing			
				Planned area (acres)	Actual Planted area (acres)	% improved seed	Irrigation use	Fertiliser use	Herbicide use	Fungicide use	Pesticide use	How harvested	How threshed	Area Harvested (acres)	main product code	Quantity harvested (Kgs)	Quantity Stored (kgs)	Quantity sold (kgs)	Mostly sold to
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
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Total Planned/Planted						Total area harvested													

7.1.3 Main reason for difference between **Area Planned** and **Area Planted**

7.1.4 Main reason for difference between **Area Planted** and **Area Harvested**

<p>Land Clearing (Col 3) Mostly bush clearance ...1 Mostly hand slashing2 Mostly tractor slashing ...3 Mostly burning4 No land clearing5</p>	<p>Improved seed Use (Col 7) all Improved1 approx 3/4 improved2 approx 1/2 improved3 approx 1/4 improved4 less than 1/4 improved ..5 No improved seed used.6</p>	<p>Fertiliser codes (Col 9) Mostly Farm Yard Manure 1 Mostly Compost2 Mostly Inorganic fertiliser ..3 No fertiliser applied4</p>	<p>Threshed/harvested (Col 13 & 14) By hand1 By draft animal2 By human powered tool3 By engine driven machine...4 Not applicable9</p>	<p>Mostly sold to (Col 20) Neighbour.....01 Local market/trade store02 Secondary Market...03 Tertiary Market04 Marketing Coop05 Farmer Association06 Largescale farm07 Trader at Farm08 Contract Partner ...09 Did not sell10 Other98</p>	<p>Reason for difference between area planned and planted (Q7.1.3) Drought1 Floods2 Access to land preparation tools (Draft animal/tractors).3 Credit4 Access to seeds/planting material.....5 Access to other inputs6 Other8 Not applicable9</p>	<p>Reason for difference between area planted and harvested (Q7.1.4) Drought1 Rain/flood damage2 Fire damage3 Pest damage4 Animal damage5 Theft6 Illness/social problems7 Other8 Not applicable9</p>
<p>Soil preparation Method (Col 4) Mostly tractor ploughing .1 Mostly Oxen ploughing ..2 Mostly Hand cultivation ..3</p>	<p>Irrigation Use (Col 8) Used on all crop1 Used on 3/4 of crop2 Used on 1/2 of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Agrochemical use codes (Col 10,11 & 12) Used on all crop1 Used on 3/4 of crop2 Used on 1/2 of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Main product (Col 16) Dry Grain1 Green cob/green pod2 Green leaves & Stem3 Straw, dry stems etc4 Root, tuber, etc5 Flower eg pyrethrum6 Fruit/bunch7 Other8 Not harvested yet9</p>			

Definitions and working page for page 4

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 1	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				crop%	crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check			Crop total check		

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
				crop%	crop area
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check			Crop total check		

Land Clearing: Refers to removing trees/bush/grass prior to ploughing
Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc)
Planned Area: Area in **Acres** the household planned to plant before the season started
Actual Planted Area: The area in **Acres** the household was able to plant.
Area Harvested: The area in **Acres** that produced a harvest. This is the same as the area planted minus the area that was destroyed by major flood/pest/ animal/etc damage.

Temporary/Annual Crop:
 Crops which are planted and harvested within a period of 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal basis.

Crop Codes (Cereals /tubers/roots):

Code	Crop
11	Maize
12	Paddy
13	Sorghum
14	Bulrush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatos
23	Irish potatoes
24	Yams
25	Cocoyams
26	Onions
27	Ginger

Vegetable Codes:

Co	Crop
-de	
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkins
93	Cucumber
94	Egg Plant
95	Water Mellon
96	Cauliflower

Crop Codes Legumes Oil & fruit:

Code	Crop
31	Beans
32	Cowpeas
33	Green gram
35	Chick peas
36	Bambara nuts
37	Field peas
41	Sunflower
42	Simsim
43	Groundnut
47	Soyabeans
48	Caster seed

Cash Crop Codes:

Code	Crop
50	Cotton
51	Tobacco
53	Pyrethrum
62	Jute
19	Seaweed

Instructions for calculating the area of mixed crops in a mixture.

- If the mixed crop is mixed annual only enter the total area of the field in the REMAINING AREA UNDER TEMPORARY CROPS. and goto step 1 of these instructions.
- If the mixed crop is mixed permanent and annual try to get the % occupied by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annual crops in the mix, Step C
- Number of trees method to calculate annual crop areas in a perant-annual crop mix/
 - list each of the permanent crops in column b and enter the ground area per acre for each permanent crop (from instructions for page 6) in column 'd'.
 - obtain the number of permanent trees in the mix from the respondent and enter the number in column 'e'.
 - calculate the area occupied by each crop by multiplying column 'd' with column 'e' and sum these to obtain the total area of permanent crops in the mix.
 - subtract the total area of permanent crops in the mix from the total area of mix and enter the result in the total area under temporary crops.
 - proceed to step 1 to calculate the area under each temporary crop.

- Enter the name of each annual crop in the mix & estimate the percentage of each crop.
- Using the percentages for each crop calculate the area of each crop from the REMAINING AREA UNDER TEMPORARY CROPS.
- After completing this exercise for all fields, sum the area of each crop in the mix plus any monocrops and enter totals in section 7.1 col 6.
- Obtain an estimate of the planned area for each crop and enter it in column 5
- If the area harvested is different to the area planted estimate the harvest area
- Once the quantity harvested is obtained calculate the Yield (Metric tonnes/acre) & compare the figure with the norms given in the crop codes box. If it is excessively different check the area and the amount harvested.

7.2 ANNUAL CROP AND VEGETABLE PRODUCTION - LONG RAINY SEASON

7.2.1 Did the hh **plant** any crops during the **LONG RAINY** season? (Yes=1 No=2)

If the response is 'NO' give main reason Then go to section 7.3

Main Reason (Above) No rains.....1 Rains came too late2 Does not plant annual crops3
No money 4 Illness/social problems ..5

7.2.2 For each crop planted during 2002/03 **Long Rainy** season provide the following information

Crop Name	Crop Code	Land Clearing	Soil preparation	Planting		Inputs						Harvesting & Storage				Marketing			
				Planned area (acres)	Actual Planted area (acres)	% improved seed	Irrigation use	Fertiliser use	Herbicide use	Fungicide use	Pesticide use	How harvested	How threshed	Area Harvested (acres)	main product code	Quantity harvested (Kgs)	Quantity Stored (Kgs)	Quantity sold (kgs)	mostly sold to
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
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Total Planned/Planted						Total area harvested													

7.2.3 Main reason for difference between **Area Planned** and **Area Planted**

7.2.4 Main reason for difference between **Area Planted** and **Area Harvested**

<p>Land Clearing (Col 3)</p> <p>Mostly bush clearance ...1 Mostly hand slashing2 Mostly tractor slashing ...3 Mostly burning4 No land clearing5</p>	<p>Improved seed Use (Col 7)</p> <p>all Improved1 approx 3/4 improved.....2 approx 1/2 improved.....3 approx 1/4 improved....4 less than 1/4 improved ..5 No improved seed used.6</p>	<p>Fertiliser codes (Col 9)</p> <p>Mostly Farm Yard Manure 1 Mostly Compost2 Mostly Inorganic fertiliser ..3 No fertiliser applied4</p>	<p>Threshed/harvested (Col13 & 14)</p> <p>By hand1 By draft animal2 By human powered tool.....3 By engine driven machine...4 Not applicable9</p>	<p>Mostly sold to (Col 20)</p> <p>Neighbour.....01 Local market/trade store02 Secondary Market...03 Tertiary Market04 Marketing Coop ...05 Farmer Association06 Largescale farm ...07 Trader at Farm08 Contract Partner ...09 Did not sell10 Other98</p>	<p>Reason for difference between area planned and planted (Q7.2.3)</p> <p>Drought1 Floods2 Access to land preparation tools (Draft animal/tractors).3 Credit4 Access to seeds/planting material.....t Access to other inputst Other8 Not applicable9</p>	<p>Reason for difference between area planted and harvested (Q7.2.4)</p> <p>Drought1 Rain/flood damage2 Fire damage3 Pest damage4 Animal damage5 Theft6 Illness/social problems7 Other8 Not applicable.....9</p>
<p>Soil preparation Method (Col 4)</p> <p>Mostly tractor ploughing .1 Mostly Oxen ploughing ..2 Mostly Hand cultivation ..3</p>	<p>Irrigation Use (Col 8)</p> <p>Used on all crop1 Used on 3/4 crop2 Used on 1/2 crop3 Used on 1/4 of crop.....4 Used on less than 1/4 ...5 Not used6</p>	<p>Agrochemical use codes (Col 10,11 &12)</p> <p>Used on all crop1 Used on 3/4 of crop2 Used on half of crop3 Used on 1/4 of crop4 Used on less than 1/45 Not used6</p>	<p>Main product (Col 16)</p> <p>Dry Grain1 Green cob/green pod.....2 Green leaves & Stem.....3 Straw, dry stems etc4 Root, tuber, etc5 Flower eg pyrethrum6 Fruit/bunch.....7 Others8 Not harvested yet9</p>			

Definitions and working page for page 5

Working table for the calculation of area occupied by annual crop in a mixture

Crop mixture 1	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
			Temp crop%	Temp crop area	
Permanent/Temporary crop name 1					
Permanent/Temporary crop name 2					
Permanent/Temporary crop name 3					
Total area check			Temporary crop total check		

Crop mixture 2	Crop Name	Total area of mix (acre)	Ground area/plant (ACRE)	Total no. of plants	Total ground area of plants (ACRES)
(a)	(b)	(c)	(d)	(e)	(f)
Permanent crop 1			0.00		0 .
Permanent crop 2			0.00		0 .
Permanent crop 3			0.00		0 .
Permanent crop 4			0.00		0 .
Total Area of permanent crops in mix					0 .
REMAINING AREA UNDER TEMPORARY CROPS					
			Temp crop%	Temp crop area	
Temporary/permanent crop name 1					
Temporary/permanent crop name 2					
Temporary/permanent crop name 3					
Total area check			Temporary crop total check		

Land Clearing: Refers to removing trees/bush/grass prior to ploughing
Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc)
Planned Area: Area in **Acres** the household planned to plant before the season started
Actual Planted Area: The area in **Acres** the household was able to plant.
Area Harvested: The area in **Acres** that the household got most of its production from. This is the same as the area planted minus the area that was destroyed by major flood/pest/ animal/etc damage

Temporary/Annual Crop: Crops which are planted and harvested within a period of 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal basis.	Crop Codes (Cereals /tubers/roots): Code Crop 11 Maize 12 Paddy 13 Sorghum 14 Bulrush Millet 15 Finger Millet 16 Wheat 17 Barley 22 Sweet Potatos 23 Irish potatos 24 Yams 25 Cocoyams 26 Onions 27 Ginger	Vegetable Codes: Code Crop 27 Ginger 86 Cabbage 87 Tomatoes 88 Spinach 89 Carrot 90 Chillies 91 Amaranths 92 Pumpkins 93 Cucumber 94 Egg Plant 95 Water Mellon 96 Cauliflower 20 Garlic	Crop Codes Legumes Oil & fruit: Code Crop 31 Beans 32 Cowpeas 33 Green gram 35 Chick peas 36 Bambara nuts 37 Field peas 41 Sunflower 42 Simsim 43 Groundnut 47 Soyabeans 48 Caster seed
	Cash Crop Codes: Code Crop 50 Cotton 51 Tobacco 53 Pyrethrum 62 Jute 19 Seaweed		

Instructions for calculating the area of mixed crops in a mixture.

- If the mixed crop is mixed annual only enter the total area of the field in the REMAINING AREA UNDER TEMPORARY CROPS. and goto step 1 of these instructions.
- If the mixed crop is mixed permanent and annual try to get the % occupied by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annual crops in the mix (Step C).
- Number of trees method to calculate annual crop areas in a permanent-annual crop mix
 - list each of the permanent crops in column b and enter the ground area per acre for each permanent crop (from instructions for page 6) in column 'd'.
 - obtain the number of permanent trees in the mix from the respondent and enter the number in column 'e'.
 - calculate the area occupied by each crop by multiplying column 'd' with column 'e' and sum these to obtain the total area of permanent crops in the mix.
 - subtract the total area of permanent crops in the mix from the total area of mix and enter the result in the total area under temporary crops.
 - proceed to step 1 to calculate the area under each temporary crop.

- Enter the name of each annual crop in the mix & estimate the percentage of each crop.
- Using the percentages for each crop calculate the area of each crop from the REMAINING AREA UNDER TEMPORARY CROPS.
- After completing this exercise for all fields, sum the area of each crop in the mix plus any monocrops and enter totals in section 7.1 col 6.
- Obtain an estimate of the planned area for each crop and enter it in column 5
- If the area harvested is different to the area planted estimate the harvest area
- Once the quantity harvested is obtained calculate the Yield (Metric tonnes/acre) & compare the figure with the norms given in the crop codes box. If it is excessively different check the area and the amount harvested.

7.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION

7.3.1 Does your household have any permanent/perennial crops or fruit trees (Yes=1, No=2) 1

7.3.2 For each of the permanent crops and fruit trees owned by the household provide the following information

		Size of production unit				Inputs					Harvesting & Storage					Marketing		
Perm- anent Crop Name	Perman- ent crop/ fruit tree crop Code	MONOCROP		MIXED CROP		Irrig- -at -ion use	Fert- -ilis- -er use	Herb- -ic -ide use	Fun- -gic -ide use	Pest -ici- -de use	Area Harvested (acres)	Number of mature plants	main prod- -uct code	Quantity harvested (kgs)	If no harvest give re- -ason	Quantity Stored (Kgs)	Quantity sold (kgs)	mostly sold to
		Area of Plants/ trees/Bushes in MONO CROP (acres)	Area covered by Permanent Crop in a MIXED CROP (acre)	Number of permanent Plants/trees in a MIXED CROP (5)	(6)													
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<p><u>Irrigation Use (Col 6)</u> Used on all crop1 Used on most crop2 Used on half crop3 Used on small amount of crop.4 Not used on crop5</p>	<p><u>Fertiliser codes (Col 7)</u> Mostly Farm Yard Manure.....1 Mostly Compost2 Mostly Inorganic fertiliser3 No fertiliser applied4</p>	<p><u>Agrochemical use codes (Col 8, 9 & 10)</u> Used on all crop1 Used on 3/4 of crop2 Used on 1/2. of crop3 Used on 1/4 of crop4 less than 1/4 of crop5 Not used6</p>	<p><u>Main product (Col 13)</u> Dry Grain.....1 Green cob/green pod..2 Green leaves & Stem..3 Straw, dry stems etc ...4 Root, tuber, etc5 Flower6 Fruit/bunch.....7 Other8 Not harvested yet9</p>	<p><u>Main Reason for no harvest(Col 15)</u> Crop not harvested yet1 Drought2 Rain/flood damage3 Fire damage4 Pest damage5 Animal damage6 Theft7 Other8 Not applicable9</p>	<p><u>Mostly sold to (Col 18)</u> Neighbour.....01 Local market/trade store....02 Secondary Market03 Tertiary Market04 Marketing Coop05 Farmer Association06 Largescale farm07 Trader at farm08 Contract Partner09 Did not sell10 Other98</p>
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Definitions and working page for page 6

Permanent Crop:

Permanent crops: are sown or planted once and then , they occupy the land for some years and need not to be replanted after each annual harvest. Permanent crops are mainly trees (e.g., apples) but also bushes and shrubs (e.g., berries), palms (e.g., dates), vines (e.g., grapes), herbaceous stems (e.g., bananas) and stemless plants (e.g., pineapples).

Total number of plants:

This includes both mature harvestable plants and immature non harvestable plants.

Number of mature plants: This is the number of plants which bared harvest.

Instructions for Permanent crop mono stands and mixtures

- A.** For fields that are **monocrop permanent**, **ONLY** enter the **area of plants in column 3**.
- B.** For fields that are **mixed permanent** calculate the area of each crop based on the % **occupied by each crop method** (NOT using the number of trees method) and **ONLY** enter the area in **column 4**
- C.** For fields that are **mixed permanent/annual** either:
- **ONLY** enter the **area in column 4** if the area of the permanent crop was based on the % **occupied by each crop method**
- OR**
- **ONLY** enter the **number of trees in column 5** if the number of permanent crop plants was provided

Permanent crops (oils):

Code	Crop	Ground area/plant
44	Palm Oil	0.00049
45	Coconut	0.00037
46	Cashewnut	0.00062

Permanent (Cash crops)

Code	Crop	Ground area/plant
53	Sisal	0.00012
54	Coffee	0.00049
55	Tea	0.00037
56	Cocoa	0.00049
57	Rubber	0.00099
58	Wattle	0.00099
59	Kapok	0.00124
60	Sugar Cane	0.00012
61	Cardamom	0.00049
63	Tamarin	0.00099
64	Cinamon	0.00124
65	Nutmeg	0.00099
66	Clove	0.00074
18	Black Pepper	0.00037
34	Pigeon pea	0.00025
21	Cassava	0.00019
75	Pineapple	0.00006

Permanent Crops:

Code	Crop	Ground area/plant
70	Passion Fruit	0.00074
71	Banana	0.00037
72	Avocado	0.00099
73	Mango	0.00099
74	Papaw	0.00037
76	Orange	0.00074
77	Grapefruit	0.00074
78	Grapes	0.00012
79	Mandarin	0.00074
80	Guava	0.00074
81	Plums	0.00074
82	Apples	0.00074
83	Pears	0.00074
84	Peaches	0.00074
85	Lime/lemon	0.00074
68	Pomelo	0.00099
69	Jack fruit	0.00074
97	Durian	0.00074
98	Bilimbi	0.00074
99	Rambutan	0.00074
67	Bread fruit	0.00099
38	Malay apple	0.00074
39	Star fruit	0.00074

Working Area/calculation space

7.4 Main use of Secondary Products

7.5 Did you use **Secondary Products** from any of your crops during the 2002/03 year. (Yes=1, No=2)

If the response is 'NO' go to section 8.0

7.6 List the **main crops** with **secondary products** and provide the following details:

S/N	Crop name	Crop Code	Secondary product	Prod code	Used for	Unit	Total no of Units	No of units sold	Total value of sold units (Tsh.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
7.6.1									
7.6.2									
7.6.3									
7.6.4									
7.6.5									
7.6.6									

<p>Main product (Col 4)</p> <p>Green leaves & Stem...1 Flower ...4 Straw, dry stems etc ...2 Fruit5 Root, tuber, etc3 Other8</p>	<p>Mainly used for (Col 5)</p> <p>Feeding to livestock ...1 Consumed by hh4 Building material2 Sold5 Fuel for cooking3 Did not use.....6</p>	<p>Unit (Col 6)</p> <p>Loose Bundle/bunch1 kg5 Compressed bunch/Bail...2 Stems6 Tin3 Sack7 Bucket4 Other8</p>
---	---	---

8.0 AGROPROCESSING AND BY-PRODUCTS

8.1 Did the household **process** any of the products harvested on the farm during 2002/03 (Yes=1, No=2)

If the response is 'NO' go to section 9.0

8.2 List the **main crops processed** and provide the following details:

S/N	Crop name	Crop Code	Proc-ess-ed	Main Prod-uct code	Used for	Unit	Quantity of main product	Quantity Sold	Where sold	By-Prod-uct code	Used for	Unit	Quantity of by-product	Quan-tity Sold
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
8.2.1														
8.2.2														
8.2.3														
8.2.4														
8.2.5														
8.2.6														

<p>Processed (Col 3)</p> <p>On farm by hand1 On farm by machine2 By neighbours machine...3 By farmers association ...4 By Cooperative union5 By trader6 On Large scale farm7 By factory9 Other8</p>	<p>Main product code (Col 4)</p> <p>Flour/meal.....1 Grain2 Oil3 Juice4 Fiber.....5 Pulp6 Sheet7 Other8</p>	<p>Used for (Col 5 & 11)</p> <p>Household/human consumption ..1 Fuel for cooking2 Sale3 Animal consumption.....4 Did not use5 Other8</p> <p>Unit (Col 6 & 12)</p> <p>Loose bundle/bunch1 Compressed bunch/bail...2 Tin3 Bucket4 kg5 litre6 Other8</p>	<p>Where sold (Col 9)</p> <p>Neighbour.....1 Local market/trade store2 Secondary Market3 Marketing Coop4 Farmer Association5 Largescale farm6 Trader at farm7 Did not sell9 Other8</p>	<p>By-product code (Col 10)</p> <p>Bran01 Cake02 Husk03 Juice04 Fiber05 Pulp06 Oil07 Shell08 Other98</p>
--	---	--	---	---

Definition and working page for page 7					
Temporary/annual crop codes for section 7.4 col 2					General Definition for Section 7.4
Crop Code	Crop Name	Secondary Product Question 7.4	Agroprocessing & bi-products		
			Main Products (Section 8.0)	Bi-product (Sect 8.0)	
			1	2	
11	Maize	Stems/straw	Flour	Bran	
12	Paddy	Stems/straw	polished rice grain	husk	
13	Sorghum	Stems/straw	flour		
14	Bulrush Millet	Stems/straw	flour		
15	Finger Millet	Stems/straw	flour		
16	Wheat	Stems/straw	flour	Bran	
17	Barley	Stems/straw	flour	Bran	
21	Cassava	Leaves/stems	flour		
22	Sweet Potatoes	Leaves			
23	Irish potatoes				
24	Yams				
25	Cocoyams				
26	Onions				
27	Ginger				
31	Beans	straw/stems			
32	Cowpeas	straw			
33	Green gram	straw			
34	Pigeon peas	stems			
35	Chick peas	straw			
36	Bambara nuts	straw/stems	oil	cake	
41	Sunflower	Stems	oil	Cake	
42	Simsim	straw	oil	Cake	
43	Groundnut	straw	oil	Cake	
47	Soya beans	straw	oil	Cake	
48	Caster seed	straw	oil	Cake	
75	Pineapple		Juice		
50	Cotton	straw	fibre/seed	oil	cake
51	Tobacco				
53	Pyrethrum	straw	insecticide		
62	Jute		fibre		
86	Cabbage				
87	Tomatoes				
88	Spinach				
89	Carrot				
90	Chillies		dried powder		
91	Amaranths				
92	Pumpkins	leaves			
93	Cucumber				
94	Egg Plant				
95	Water Mellon				
96	Cauliflower				
44	Oil Palm	leaves	oil outer	oil inner	cake
45	Coconut	leaves/husk	milk		
46	Cashewnut	Fruit	fruit juice	shell liquid	
52	Sisal	stems	fibre	oil	
54	Coffee	stems	beans	husks	
55	Tea	stems			
56	Cocoa	stems	cocoa	cocoa butter	
57	Rubber	stems			
58	Wattle	stems			
59	Kapok	stems			
60	Sugar Cane		sugar/juice	molasses	ethanol
61	Cardamom				
71	Banana	leaves/stems	juice		
72	Avocado	stems			
73	Mango	stems	Juice		
74	Paw paw		Juice		
76	Orange	stems	Juice		
77	Grape fruit	stems	Juice		
78	Grapes	stems	Juice		
79	Mandarin	stems	Juice		
80	Guava	stems			
81	Plums	stems			
82	Apples	stems			
83	Pears	stems			
84	Pitches	stems			
85	Lime/Lemon	stems	juice		

General Definition for Section 7.4

Secondary Products: Second most important product from a crop. Eg a household may consider the grain from maize as the primary product and the stems/straw as the secondary product.

Note: Secondary products are NOT the same as bi-products. By-products are the result of a processing activity and are dealt with in section 8.0.

Procedures for Questions

Q 7.6 Details of Secondary Products:

- From the list of crops in Q 7.1.2, 7.2.2 & 7.3.2, ask the respondent if the hh used any secondary products. List the crop names and codes in column 1 and 2 for those crops that the hh used secondary products.
- For the listed crops give details of the secondary products used.
- If no units were sold, enter "0" in columns 8 & 9.

Q 8.0 Agroprocessing & bi-products:

- From the list of crops in Q 7.1.2, 7.2.2 & 7.3.2, ask the respondent if the hh processed any of these crops during the 2002/03 agriculture year. List the crop names and codes in column 1 and 2 for those crops that were processed by the hh.
- For the listed crops give details of the secondary crops used.
- If no main product or bi-product was sold enter "0" in columns 8 & 14.
- If no bi-product was produced enter "0" in columns 10, 11, 12, 13 & 14.

Question Specific Definitions

Agroprocessing and bi-products (Q 8.2)
(Note: Agroprocessing refers to the processing of crops for hh utilisation and for sale)

Main Product (Col 5):

Main Product after processing. Eg for Paddy it may be the polished grain. For Maize it may be flour.

Bi-Product code (Col 11): is the secondary residue after processing, eg for rice it may be the husk. for maize it may be the bran.

Mainly used for (Col 5 & 11):

- Consumed by household can mean eaten or utilised in another way (eg by animals) by the hh.

9.0 CROP STORAGE							
9.1	Did the household store any crops during the 2002/03 agriculture year? (Yes =1, No=2)						<input type="checkbox"/>
<i>If the response is 'NO' go to section 10.0</i>							
9.2 For each of the listed crops provide the following details on storage							
S/N	Crop Name	Stor- ed Y=1 No=2	Current Quantity Stored (kg)	Method of Storage	Normal duration of storage	Main pur- pose	Estimate
							Storage loss
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
9.2.1	Maize	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.2	Paddy	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.3	Sorghum/Millet	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.4	Beans, peas, etc	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.5	Wheat	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.6	Coffee	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.7	Cashewnut	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.8	Tobacco	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.9	Cotton	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2.10	Groundnuts/bambara	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Main method of Storage (Col 4)

In locally made traditional structure..1
 In Improved locally made structure .2
 In modern store3
 In Sacks/open drum.....4
 In airtight drum5
 Unprotected pile6
 Other8

Duration of Storage (Col 5)

Less than 3 months1
 Between 3 and 6 months2
 Over 6 months3

Main purpose of storage (Col 6)

Food for the household1
 To sell for higher price2
 seed for planting.....3
 Other8

Storage loss (Col 67)

Little or no loss1
 Up to 1/4 loss2
 Between 1/4and 1/2 loss ..3
 Over 1/2 loss4

10.0 MARKETING																									
10.1	Did the household sell any crops from the 2002/03 agriculture year? (Yes=1, No=2)						<input type="checkbox"/>																		
<i>(If the response is 'YES' or 'NO' go to section 10.2)</i>																									
10.2 For each of the following crops what was the main marketing problem faced by the household during 02/03																									
	Crop	Main problem		Crop	Main problem	10.3 From the list of marketing problems below, for all produce rank the five most important problems																			
	(1)	(2)		(1)	(2)																				
10.2.1	Maize	<input type="checkbox"/>	10.2.9	Vegetables	<input type="checkbox"/>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>10.3.1</td> <td>Biggest problem</td> <td><input type="checkbox"/></td> </tr> <tr> <td>10.3.2</td> <td>2nd problem</td> <td><input type="checkbox"/></td> </tr> <tr> <td>10.3.3</td> <td>3rd problem</td> <td><input type="checkbox"/></td> </tr> <tr> <td>10.3.4</td> <td>4th problem</td> <td><input type="checkbox"/></td> </tr> <tr> <td>10.3.5</td> <td>5th problem</td> <td><input type="checkbox"/></td> </tr> </table>			1	2	10.3.1	Biggest problem	<input type="checkbox"/>	10.3.2	2nd problem	<input type="checkbox"/>	10.3.3	3rd problem	<input type="checkbox"/>	10.3.4	4th problem	<input type="checkbox"/>	10.3.5	5th problem	<input type="checkbox"/>
	1	2																							
10.3.1	Biggest problem	<input type="checkbox"/>																							
10.3.2	2nd problem	<input type="checkbox"/>																							
10.3.3	3rd problem	<input type="checkbox"/>																							
10.3.4	4th problem	<input type="checkbox"/>																							
10.3.5	5th problem	<input type="checkbox"/>																							
10.2.2	Rice	<input type="checkbox"/>	10.2.10	Tree Fruits	<input type="checkbox"/>																				
10.2.3	Sorghum/millet	<input type="checkbox"/>	10.2.11	Cashewnut	<input type="checkbox"/>																				
10.2.4	Wheat	<input type="checkbox"/>	10.2.12	Cotton	<input type="checkbox"/>																				
10.2.5	Beans, peas etc	<input type="checkbox"/>	10.2.13	Tobacco	<input type="checkbox"/>																				
10.2.6	Cassava	<input type="checkbox"/>	10.2.14	Groundnuts/bamabara	<input type="checkbox"/>																				
10.2.7	Bananas	<input type="checkbox"/>	10.2.15	Trees/timber/poles	<input type="checkbox"/>																				
10.2.8	Coffee	<input type="checkbox"/>	10.2.16	Fish	<input type="checkbox"/>																				

Market problems (Q10.2 & 10.3 (Col 2))

Open market price too low01 Market too far05 Government Regulatory board problems...09
 No transport02 Farmer association problems06 Lack of market Information10
 Transport cost too high03 Cooperative Problems07 Other (specify)98
 No buyer04 Trade Union problems08 Not Applicable99

| 10.4 | What was the main **reason for not selling** crops during 2002/03 year | | | | | | |

Reason for not selling crops (Q10.4)

Price too low1 Farmer association problems4 Government regulatory board problems7
 Production insufficient to sell.....2 Cooperative Problems.....5 Other (specify)8
 Market too far3 Trade Union problems6 Not Applicable9

Definition and working page for page 8**Question Specific definitions (Section 9.0)****Crop Storage, Section 9****Method of Storage (column 4)**

- **Locally made structure:** The structures that have been inherited from their fore fathers
- **Improved locally made structure:** Traditional structures that have been improved using modern technology.
- **Normal duration of storage:** Often there are stored stocks from different seasons and different years. The normal duration refers to the number of months that the most of the crop is stored for.

Marketing problems Q 10.2 and 10.3 col 2:

- **Farmer Association:** A village or community based group of farmers who have formed an organisation to purchase inputs/sell/store their products in order to achieve a better price for their products.
- **Cooperative Union:** Large inter-village /community organisation set up on a district/regional or national basis for providing inputs, marketing and storing farmers products.
- **Government Regulatory board:** Government control body for setting prices and controlling quality of certain agriculture commodities.

Procedures for Questions**Q 9.2 Details of Crop Storage:**

1. For the crops listed indicate if the household stored any during 2002/03 in column 2.
2. Check that the crops correspond to the crop lists in Q 7.1.2, 7.2.2 & 7.3.2. If there is a difference inquire on the reason why. It is possible that a crop was missed during the enumeration of these questions and if so make necessary amendments
3. For the listed crops give details of storage.

Q 10.2 Details on Crop Marketing:

1. For each of the crops listed indicate the main problems in marketing during 2002/03 in column 2.
2. Check if the crops correspond to the crop lists list in Q 7.1.2, 7.2.2 & 7.3.2. If there is a difference inquire on the reason why. It is possible that a crop was missed during the enumeration of these questions and if so make necessary amendments

Q 10.3 Ranking of market problems:

Rank in order of importance the 5 most important marketing problems from the codes in the Market Problems code box.

Working Area/calculation space

11.0 ON-FARM INVESTMENT									
11.1 Does the household practice irrigation (Yes=1, No=2) <input style="float:right" type="checkbox"/>									
<i>If the response is 'NO' go to section 11.3</i>									
S/N	Source of Irrigation water	Method of obtaining water	Method of application	Irrigatable area (acres)	Area of irrigated land this year (acres)				
	(1)	(2)	(3)	(4)	(5)				
11.1.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>				
Source of irrigation water (Col 1) River1 Borehole5 Lake2 Canal6 Dam3 Tap Water7 Well4			Method of obtaining water (Col 2) Gravity1 motor pump4 Hand bucket2 Other8 Hand pump3		Method of application (Col 3) Flood1 Sprinkler2 water hose3 Bucket/watering can4				
11.2 Does the household have any erosion control/water harvesting facilities on their land (Yes=1, No=2) <input style="float:right" type="checkbox"/>									
<i>If the response is 'NO' go to section 12.0</i>									
S/N	Type of erosion control/water harvesting structure	Number of structures	Year of construction		Type of erosion control/water harvesting structure	Number of structures	Year of construction		
	(1)	(2)	(3)		(1)	(2)	(3)		
11.2.1	Terraces	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	→	11.2.5	Tree belts	<input type="text"/> <input type="text"/>		
11.2.2	Erosion control bunds	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.6	Water harvesting bunds	<input type="text"/> <input type="text"/>		
11.2.3	Gabions/Sandbags	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.7	Drainage ditches	<input type="text"/> <input type="text"/>		
11.2.4	Vetiver Grass	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>		11.2.8	Dam	<input type="text"/> <input type="text"/>		
12.0 ACCESS TO FARM INPUTS AND IMPLEMENTS									
12.1 Give details of farm inputs used during the 2002/03 agriculture year									
S/N	Input name	Used Yes=1 No=2	Source	Distance to Source	Source of Finance	Reason for not using	Quality of Input	Plan to use next year Yes =1,No=2	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
12.1.1	Chemical Fertiliser	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.2	Farm Yard Manure	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.3	Compost	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.4	Pesticide/fungicide	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.5	Herbicide	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.6	Improved Seeds	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1.7	Other	<input type="checkbox"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Source (Col 3) Cooperative01 Local farmers group02 Local market/Trade Store ...03 Secondary Market04 Development project05 Crop buyers06 Large scale farm07 Locally produced by hh08 Neighbour09 Other (specify)98 Not applicable99		Distance to source (Col 4) Less than 1 Km1 Between 1 and 3km2 between 3 and 10 km...3 Between 10 and 20 km ...4 20km and above5 not applicable9		Source of finance (Col 5) Sale of farm products .1 Other income generating activities ...2 Remittances3 Bank Loan/Credit4 produced on farm5 Other8 Not applicable9		Reason for not using (Col 6) Not available1 Price too high2 No money to buy3 Too much labour required.4 Do not know how to use.....5 Input is of no use6 Locally produced by hh7 Other8 Not applicable9		Quality of input (Col 7) Excellent1 Good2 Average3 Poor4 Does not work .5 not applicable...9	

Definition and working page for page 9

Overview of Investment activities (Section 11.0)

Investment activities:

Investment activities refer to medium to long term farm development structures and projects. This can be Irrigation structures, erosion and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

Question Specific Definitions (Q 11.1)

Source of irrigation Water (Col 1): The main source of water from which water is obtained for irrigation.

Method of obtaining water (Col 2): The mechanism by which the water is extracted from the source,

Application Method (Col 3): How the water is applied on the field.
 - Flood - is the application of water down the slope of the land by means of gravity
 - Sprinkler - is the application of pressurised water through pipes. The water passes through a device which sprays the water onto the crop from above.

Irrigatable Area (Col 4): The area the irrigation system is designed to cover in acres.

Area of irrigated land this year (Col 5): Area of land under irrigation during the 2002/03 agric year. This is the physical area and NOT the cumulative area of 2 or more croppings.

Q 11.1 Irrigation

1. If the hh practices irrigation give details on the main source, main method of obtaining and applying water.
2. Cross check column 8, Q 7.1.2, 7.2.2 & 7.3.2 to check if irrigation was used on any crops.

Question Specific Definitions (Q 11.3)

Erosion control/water harvesting structure (Col 1)

Terraces: Are structures constructed on the side of a hill to provide a level ground to plant crops. They are often used to trap water for paddy/lowland rice production.

Erosion Control Bunds: These are banks of earth/stones built perpendicular to the slope to slow down water and prevent erosion. They are different to Terraces in that the soil behind the banks are not level.

Gabions: A gabion is a wire mesh box filled with rocks/stones and used to control or prevent gully erosion

Sandbags Used to prevent or control gully erosion

Tree belts/Wind breaks: A band of trees planted perpendicular to the prevailing wind whose main purpose is to slow down wind speed

Water Harvesting bunds: A bank of earth constructed horizontal to the slope of the land to trap water. They are usually banana shaped.

Dam: A bank of earth/material which traps river water to form a catchment of water behind it.

Q 11.3 erosion control/water harvesting

1. Number of structures refers to the number of working/maintained structures and does not include derelict or irreparable structures.
2. Year of construction refers to the year that the structures were first constructed. It is not the year that the structures were last maintained.

Farm Inputs (Q 12.1.1 to 12.1.7)

Farm yard Manure: An organic fertiliser made on farm composed of animal dung.

Compost: An organic fertiliser made on farm from decomposed plant material

Pesticide: Chemical used to either protect the plant from or kill insects, birds, molluscs, mites, etc attacking the plant

Fungicide: is a chemical that s used to protect the plant from or control a fungal disease.

Herbicide: A chemical used to control weeds.

Q 12.0 Farm Inputs

1. Indicate in column 1 whether each of the inputs are used or not.
2. Complete cols 3, 4, 6, and 7 for inputs that are used and place '9' in column 5 (for not applicable).
3. Complete cols 5 & 7 for inputs not used.

NOTE: Cross check column 6, 7, 8 & 9 , Q 7.1.2, 7.2.2 & 7.3.2 to check what inputs were used.

12.2 Give details of farm implements and assets used and owned by the household during 2002/03 agriculture year								
S/N	Equipment/Asset Name	Number		Used in 2002/03 Yes 1, No=2	Source of Equip-ment	Source of Fin-ance	Reason for not using	Plan to use next year Yes=1, No=2
		Owned	rent -ed					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
12.2.1	Hand Hoe	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.2	Hand Powered Sprayer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.3	Oxen	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.4	Ox Plough	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.5	Ox Seed Planter	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.6	Ox Cart	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.7	Tractor	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.8	Tractor Plough	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.9	Tractor Harrow	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.2.10	Shellers/threshers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Source of equipment (Col 5)		Source of finance (Col 6)		Reason for not using (Col 7)				
Neighbour.....1 Development project5		Sale of farm products1		Not available1				
Cooperative2 Government6		Other income generating activities .2		Price too high2				
Local farmers association.....3 Large scale farm7		Remittances3		No money to buy/rent.....3				
market/Trade store4 Other (specify)8		Bank Loan4		Too much labour required...4				
		Credit5		Equipment/Asset of no use ...5				
		Other8		Other8				
		Not applicable9		Not applicable9				
13.0 USE OF CREDIT FOR AGRICULTURE PURPOSES								
13.1	During the year 2002/03 did any of the hh members borrow money for agriculture (Yes = 1, No = 2) (if the response is 'NO' go to section 13.3)							<input type="text"/>
13.2	Give details of the credit obtained during the agricultural year 2002/03 (if the credit was provided in kind , for example by the provision of inputs, then estimate the value in 13.2.9)							
	use codes to indicate source	Source "a"		Source "b"		Source "c"		
	Provided to Male = 1, Female 2	<input type="text"/>		<input type="text"/>		<input type="text"/>		
		tick the boxes below to indicate the use of the credit		tick the boxes below to indicate the use of the credit		tick the boxes below to indicate the use of credit		
13.2.1	Labour	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.2	Seeds	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.3	Fertilisers	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.4	Agrochemicals	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.5	Tools/equipment	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.6	Irrigation structures	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.7	Livestock	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.8	Other	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.9	Value of Credit (Tsh.)	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.10	Value of repayment (Tsh.)	<input type="text"/>		<input type="text"/>		<input type="text"/>		
13.2.11	Period of repayment (months)	<input type="text"/>		<input type="text"/>		<input type="text"/>		
Source of credit (Q 13.2-a, b and c) Family, friend or relative...1 Commercial Bank.....2 Cooperative3 Savings & credit Soc4 Trader/trade store5 Private individual6 Religious Organisation/NGO/Project ...7 Other (Specify).....8								
13.3	If the answer to question 13.1 above is 'NO' what is the reason for not using Credit?							<input type="text"/>
Reason for not using credit (Q13.3) Not needed ...1 Not available ...2 Did not want to go into debt....3 Interest rate/cost too high.....4 Did not know how to get credit....5 Difficult bureaucratic procedure ...6 Credit granted too late ...7 Other (specify) ...8 Dont know about credit9								

Definition and working page for page 10

Question Specific Definitions (Q 12.2)

Farm Implements (Col 1):

Hand powered Sprayer: Knapsack or bicycle pump sprayer

Reason for not using (Col 6): Be careful about using "too much labour required" as this code generally refers to hand hoes only. The codes for this should "**NOT**" be read out to the farmer as a prompt.

Note: If remittance is given as the main source of finance check for a response to remittances in **question 2.2.5**

Question Specific Definitions (Q 13.0)

Section 13.0 Credit for Agriculture Purposes

Credit is defined as finance in the form of cash or in-kind contributions (eg direct provision of inputs, machinery, livestock or other material) for the purpose of crop and livestock production whereby the value of the credit must be paid back to the borrower. The value of repayment may either be with interest or interest free.

Credit may be paid back in the form of cash or agriculture produce.

Section 13.0 Credit for Agriculture Purposes

Value of credit: is the amount in cash received from the borrower. If the credit was paid in-kind, estimate the value of this.

Value of repayment: This is the amount to be repaid to the borrower and includes the principal amount (value of credit) plus any interest repayment. If the credit is paid back in agriculture produce, then the cash value of this must be estimated.

Period of repayment: This is the time in **months** the borrower has given for full repayment.

Procedures for questions

Q 12.0 Farm Inputs

1. Indicate in column 2 and 3 whether each of the implements were used or not.
2. Complete cols 4, 5, 6, and 8 for inputs that are used and place '9' in column 7 (for not applicable).
3. Complete cols 7 & 8 for inputs not used.

Section 13.2 Source of agriculture credit

If the farmer obtained credit from more than one source then use the columns "a", "b" and "c" for the different sources of credit. Start with the main source of credit in column "a".

NOTE: Check for use of inputs in column 7, 8 & 9 of questions 7.1.2, 7.2.2 & 7.3.2.

Working Area/calculation space

14.0 TREE FARMING/AGROFORESTRY										
14.1	Did your household have any Planted Trees on your land during 2002/03 agric year? (Yes =1, No=2)									<input type="checkbox"/>
<i>If the response is 'NO' go to section 14.3</i>										
14.2 Give details of the planted trees you have on your land.										
S/N	Tree Code	Number of trees	Where planted	Main Use	Secondary Use	Number of Plank trees Sold	Number of Pole trees Sold	hh utilised		Total Value (Tsh.)
								Poles	Timber	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
14.2.1	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.2	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.3	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14.2.4	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
						Where Planted (Col 3) Mostly on field/plot boundaries.....1 Mostly scattered in fields2 Mostly in plantation/coppice ...3		Use (Col 4 & 5) Planks/Timber.....1 Shade5 Poles2 Medicinal.....6 Charcoal3 Other8 Fuel wood4		
14.3	Does your village have a Community tree planting scheme (Yes=1, No=2)									<input type="checkbox"/>
<i>If the response is 'NO' go to section 15.0</i>										
14.4 Household involvement in community tree planting scheme										
S/N	Distance to community planted forest (Km)	hh Involvement	Main purpose	Main use during 2002/03						
	(1)	(2)	(3)	(4)						
	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
		HH involvement (Col 2) Only planting1 Only protection and thinning.....2 Only cutting3 Most or all activities.....4		Main Purpose (Col 3) Erosion control.....1 Environment rehabilitation ...4 Production of poles2 Restoration of wildlife5 production of firewood...3 Other (specify)8			Main Use during 02/03(Col 4) Poles1 Not ready to use5 Timber logs2 Not allowed to use ...6 Charcoal3 Other (specify)8 Firewood4			
15.0 CROP EXTENSION SERVICES										
15.1	Did your household receive extension advice for crop production during 2002/03 (Yes=1,No=2)									<input type="checkbox"/>
<i>If the response is 'NO' go to section 16.0</i>										
S/N	Extension Provider	Source of extension (Y=1,N=2)	If you pay for extension, what is the cost/yr	Contact farmer /group member (Yes=1,No=2)	No. of visits by extension agency per year	No. of message adopted in the last 3 years	Quality of Service			
							(1)	(2)	(3)	(4)
15.1.1	Government extension	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.2	NGO/development project	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.3	Cooperative	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.4	Large Scale farmer	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
15.1.5	Other.....	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Quality of service (Col 7) Very good1 good2 Average.....3 Poor.....4 No Good5								

Definition and working page for page 11

General Definitions for section 14.0

Tree Farming/Agroforestry

This section refers to trees **planted** for wood (firewood, poles, planks, carving, charcoal, medicinal, etc, but **NOT** fruit trees). It does **not** include naturally growing trees on the farm (unless special care has been given to promote their establishment) or trees growing naturally on the communal areas.

Tree farming is the planting of trees on an area of land for which the main purpose is the production and regeneration of trees for wood on that land.

Agroforestry: is the planting of trees on land for the purpose of complementing other farming activities like crop and animal production. For the purpose of this questionnaire Agroforestry trees are trees planted on boundaries and scattered throughout fields. The main productive unit in this case is Crops and Livestock.

Section 14.2 Details of planted trees

1. Enter the tree codes of the main species grown by the hh
2. If no planks or poles are sold enter a "0" in columns 8, & 9.
3. Total value includes both value of hh utilised trees and sold trees.
4. If no trees were utilised by the hh or sold enter "0" in column 10

Question Specific Definitions

Tree farming (Section 14.0)

Pole trees (Col 6): These are young trees which have a maximum diameter of 6 inches at the bottom and are often used for house construction. They are often the thinning harvest after 3 - 5 years.

Plank trees (Col 7): Trees for sawing into timber planks.

Animal shade: Trees grown for the purpose of providing shade to animals.

Community tree planting scheme (Section 14.3)

Community Forest: A forest planted on the communal land which is planted, replanted or spot planted by the members of the village.

Crop Extension Services (Section 15.1)

Contact Farmer: A farmer who is used by the extension agent as a focal point to demonstrate new interventions. The contact farmer then passes on the message to other farmers

Group member: Member of a group under which the contact farmer leads

Adoption: This is the uptake of an intervention for 2 or more years

Section 15.1 Crop Extension Services

1. For each of the extension providers ask if the hh received extension during 2002/2003 agriculture year and indicate in column 2.
2. For each of the providers complete the rest of the columns

Tree Name Guide Col 1

Code	Local Name	Botanical Name	English Name
01		<i>Senna siamea</i>	Cassod tree
02	Msongoma	<i>Gravellia</i>	Silver oak
03	Mbarika	<i>Azelia quanzensis</i>	Pod mahogany
04	Mkeshia	<i>Acacia spp</i>	Umbrella thorn
05	Msindano	<i>Pinus spp</i>	Pine
06	Mkaratusi	<i>Eucalyptus spp</i>	Red River Gum
07		<i>Cyprus spp</i>	Cyprus tree
08	Mtndoo	<i>Calophyllum inophyllum</i>	
09	Mvule	<i>Melicia excelsa</i>	Iroko
10	Mvinji	<i>Casurina equisetifolia</i>	Whistling oak
11	Msaji	<i>Tectona grandis</i>	Teak
12	Mkungu wa kienyeji	<i>Terminalia catapa</i>	Sea almond
13	Mkungu india	<i>Terminilia ivorensis</i>	Black afara
14	Muhumula	<i>Maesopsis berchemoides</i>	
15			

Code	Local Name	Botanical Name	English Name
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

15.2 Crop Extension Messages

S/N	Extension Message	Received Advice Yes=1 No=2	Adopted Yes=1 No=2	Source of Crop Extension	S/N	Extension Message	Received Advice Yes=1 No=2	Adopted Yes=1 No=2	Source of Crop Extension
	(1)	(2)	(3)	(4)		(1)	(2)	(3)	(4)
15.2.1	Spacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.9	Crop Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.2	Use of agrochemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.10	Vermin control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.3	Erosion control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.11	Agro-processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.4	Organic fertiliser use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.12	Agro-forestry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.5	Inorganic fertiliser use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.13	Bee Keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.6	Use of improved seed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.14	Fish Farming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.7	Mechanisation/LST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.2.15	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.2.8	Irrigation Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Source of extension (Col 4)
 Government1 NGO/Dev project ..2 Cooperative ...3 Large scale farmer4 Other (Specify) ...8 Not applicable9

16.0 LIVELIHOOD CONSTRAINTS

From the list of constraints on the right select:					List of constraints	
16.1	the 5 most important problems	16.2	the 5 least important problems			
	Order of most importance	Constraint	Order of least importance	Constraint		
	(1)	(2)	(1)	(2)		
16.1.1	most important	<input type="checkbox"/>	16.2.1	Least important	<input type="checkbox"/>	1. Access to Land 2. Ownership of Land 3. Poor farm Inputs 4. Soil Fertility 5. Access to improved seed 6. Irrigation facilities 7. Access to chemical Inputs 8. Cost of Inputs 9. Extension Services 10. Access to forest resources 11. Hunting and Gathering 12. Access to potable water 13. Access to credit 14. Harvesting 15. Threshing 16. Storage 17. Processing 18. Market Information 19. Transport costs 20. Distruction by animals 21. Stealing 22. Pests and Diseases 23. Local government taxation 24. Access to off Farm Income
16.1.2	2nd most important	<input type="checkbox"/>	16.2.2	2nd least important	<input type="checkbox"/>	
16.1.3	3rd most important	<input type="checkbox"/>	16.2.3	3rd least important	<input type="checkbox"/>	
16.1.4	4th most important	<input type="checkbox"/>	16.2.4	4th least important	<input type="checkbox"/>	
16.1.5	5th most important	<input type="checkbox"/>	16.2.5	5th least important	<input type="checkbox"/>	

17.0 ANIMAL CONTRIBUTION TO CROP PRODUCTION

17.1	Did you use Draft animals to cultivate your land during 02/03 (Yes=1, No=2) <input type="checkbox"/>				17.2	Did you apply organic fertiliser during 02/03 (Yes=1, No=2) <input type="checkbox"/>		
(If no, go to question 17.2)					(If no, go to question 18)			
S/N	Type of Draft	Number owned	Number used	Area cultivated (acres)	S/N	Type of organ Fertiliser	Area applied (acres)	
	(1)	(2)	(3)	(4)		(1)	(2)	
17.1.1	Oxen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2.1	FYM	<input type="checkbox"/>	<input type="checkbox"/>
17.1.2	Bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.2.2	Compost	<input type="checkbox"/>	<input type="checkbox"/>
17.1.3	Cows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
17.1.4	Donkeys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Definitions and working page for page 12

Question Specific Definitions

Crop Extension Advice (Section 15.2)

Mechanisation/LST: LST means Labour Saving Technology

Section 16.0 Livelihood constraints

16.1 List the five most important problems in order of most importance:

1. Read out the list of constraints to the respondent and ask him to select the ones that are a problem. Place a ✓ against the constraints that are a problem.
2. Read the selected constraints and ask the farmer to select 5 which create the largest problems
3. Ask the farmer to list these in order of importance and enter in column 2

16.2 List the five least important problems in order of least importance:

1. Read out the list of constraints to the respondent and ask him to select the ones that are **NOT** a problem. Place an ✗ against the constraints that are **NOT** a problem.
2. Read the selected constraints and ask the farmer to select 5 which create the least problems
3. Ask the farmer to list these in order of least importance and enter in column 2

18.0 CATTLE POPULATION, INTAKE AND OFFTAKE																									
18.1 Did the household own, raise or manage any CATTLE during 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>																									
18.2 Cattle Population as of 1st October 2003					18.3 Cattle Intake during 2002/2003																				
S/N	Cattle type <i>(1)</i>	Number of Indigenous <i>(2)</i>	Number of Improved		Total <i>(5)</i>	S/N	Number Purchased <i>(6)</i>	Number given /obtained <i>(7)</i>	Number Born <i>(8)</i>	Total Intake of Cattle <i>(9)</i>	Average Value per head <i>(10)</i>														
			Beef <i>(3)</i>	Dairy <i>(4)</i>																					
18.2.1	Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.1	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>														
18.2.2	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.2	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>														
18.2.3	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.3	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>														
18.2.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.4	<input type="text"/>	<input type="text"/>	X X X	<input type="text"/>	<input type="text"/>														
18.2.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>														
18.2.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.3.6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>														
Grand Total					<input type="text"/>	Total Intake					<input type="text"/>														
18.4 Cattle Offtake during 2002/2003								18.5 Cattle diseases																	
S/N	Cattle type <i>(1)</i>	Number Sold/traded <i>(2)</i>	Number con sumed by hh <i>(3)</i>	Number given away/stolen <i>(4)</i>	Number died <i>(5)</i>	Total Cattle Offtake <i>(6)</i>	Average value per head <i>(7)</i>	S/N	Disease/ parasite <i>(1)</i>	Number Infected <i>(2)</i>	Number Treated <i>(3)</i>	No. Rec -overed <i>(4)</i>	Number Died <i>(5)</i>	Last vacci nated <i>(6)</i>	Main Sou -rce <i>(7)</i>										
																18.4.1	Bulls	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.5.1	Tick Borne diseases
18.4.2	Cows	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.4.3	Steers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
18.4.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.4.4	Heifers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
18.4.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.4.5	Male Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
18.4.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	18.4.6	Female Calves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
Total Offtake					<input type="text"/>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">Sold to Q18.6 Col 5)</td> </tr> <tr> <td>Neighbour.....1</td> <td>Largescale farm ..5</td> </tr> <tr> <td>Local Market.....2</td> <td>Trader at Farm ...6</td> </tr> <tr> <td>Secondary Market ...3</td> <td>Did not sell7</td> </tr> <tr> <td>Processing industry .4</td> <td>Other8</td> </tr> </table>										Sold to Q18.6 Col 5)		Neighbour.....1	Largescale farm ..5	Local Market.....2	Trader at Farm ...6	Secondary Market ...3	Did not sell7	Processing industry .4	Other8
Sold to Q18.6 Col 5)																									
Neighbour.....1	Largescale farm ..5																								
Local Market.....2	Trader at Farm ...6																								
Secondary Market ...3	Did not sell7																								
Processing industry .4	Other8																								
18.6 Milk Production								<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2">Last Vaccinated (Col 6)</td> </tr> <tr> <td>20031</td> <td>20004</td> </tr> <tr> <td>20022</td> <td>before 20005</td> </tr> <tr> <td>20013</td> <td>Not Vaccinated...6</td> </tr> </table>				Last Vaccinated (Col 6)		20031	20004	20022	before 20005	20013	Not Vaccinated...6						
Last Vaccinated (Col 6)																									
20031	20004																								
20022	before 20005																								
20013	Not Vaccinated...6																								
S/N	Season <i>(1)</i>	Litres of milk/day <i>(2)</i>	No. of cattle milked/day <i>(3)</i>	Value/litre <i>(4)</i>	Sold to <i>(5)</i>	Sold/day (Litres) <i>(6)</i>	Main Source of vaccine (Col 7)																		
							Private Vet Clinic ..1	Other8	District Vet Clinic ..2	Not applicable9															
18.6.1	Wet Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	NGO/Project.....3																		
18.6.2	Dry Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																			

Definitions and working page for page 13**General definitions for page 13**

Cattle Intake during 2002/03: Cattle purchased, given or born which increases the number of cattle in the herd.

Cattle Offtake during 2002/03:

Cattle removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 18.0)**Cattle type (Q 18.2 & 18.4, Col 1)**

Bull: Mature **Uncastrated** male cattle used for breeding

Cow: Mature female cattle that has given birth at least once

Steer: Castrated male cattle over 1 year

Heifer: Female cattle of 1 year up to the first calving

Calves: Young cattle under 1 year of age

Average Value per Head (Q 18.3, (Col 7 & 9) & 18.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Cattle vaccination (18.5 col 1)

ECF: East Coast Fever

FMD: Foot and Mouth Disease

CBPP: Contagious Bovine Pleura Pneumonia

Section 18.0 Cattle Population, Intake & Offtake.

NOTE: Section 18.1 is for the current population (as of 1st October 2003); Section 18.2 and 18.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 18.4 is for diseases encountered during the agriculture year.

1. If the household has cows, you would normally expect them to have calves in column 8

2. If calves are reported in column 2, 3, or 4 (18.2.6, 18.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of cattle the importance of this must be reflected in Q 2.2.3

Section 18.5 If cattle are reported to have died in Column 5 then at least that number should be reported in 18.4 col 4

Working area for page 13

19.0 GOAT POPULATION, INTAKE AND OFFTAKE																
19.1 Did the household own, raise or manage any GOATS during the 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>																
(If no go to section 20.0)																
19.2 Goat Population as of 1st October 2003										19.3 Goat Intake during 2002/2003						
S/N	Goat type	Number of Indigenous	Number of Improved		Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Goats	Average Value per head					
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)					
19.2.1	Billy Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.1	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>					
19.2.2	Castrated Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.2	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>					
19.2.3	She Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.3	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>					
19.2.4	Male Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
19.2.5	She Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	19.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
Grand Total					<input type="text"/>	Total Intake					<input type="text"/>					
19.4 Goat Offtake during 2002/2003										19.5 Goat diseases						
S/N	Goat type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Goat Offtake	Average value per head		S/N	Disease/parasite	Number Infected	Number Treated	No. Rec- overed	Number Died	Last vacci- nated	Main Sou- rce
	(1)	(2)	(3)	(4)	(5)	(6)	(7)			(1)	(2)	(3)	(4)	(5)	(6)	(7)
19.4.1	Male goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
19.4.2	Castrated Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		19.5.1	Foot Rot	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
19.4.3	She Goat	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		19.5.2	CC PP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.4.4	Male Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		19.5.3	Helminthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
19.4.5	She Kid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		19.5.4	Tetanus	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total Offtake						<input type="text"/>			19.5.5	Mange	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
19.6 Milk Production							Sold to Q19.6 Col 5) Neighbour.....1 Largescale farm ...5 Local Market.....2 Trader at Farm ...6 Secondary Market ...3 Did not sell7 Processing industry .4 Other8									
S/N	Season	Litres of milk/day	No. of Goats milked/day	Value/litre	Sold to	Sold/day (Litres)	Last Vaccinated (Col 6) 20031 20004 20022 before 20005 20013 Not Vaccinated...6									
	(1)	(2)	(3)	(4)	(5)	(6)	Main Source of vaccine (Col 7) Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not applicable9 NGO/Project3									
19.6.1	Wet Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>										
19.6.2	Dry Season	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>										

Definitions and working page for page 14

Goat definitions for page 14

Goat Intake during 2002/03: Goat purchased, given or born which increases the number of goats in the herd.

Goat Offtake during 2002/03:

Goat removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 19.0)

Goat type (Q 19.2 & 19.4, Col 1)

Billy Goat (he-goat): Mature **Uncastrated** male goat used for breeding

Castrated goat: Male goat that has been castrated.

She Goat: Mature female goat over 9 months of age

Kid: Young goat under 9 months of age.

Average Value per Head (Q 19.3, (Col 7 & 9) & 19.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Goat vaccination (19.5 col 1)

FMD: Foot and Mouth Disease

CCPP: Contagious Caprine Pleura Pneumonia

LSD: Lumpy Skin Disease

Section 19.0 Goat Population, Intake & Offtake.

NOTE: Section 19.1 is for the current population (as of 1st October 2003); Section 19.2 and 18.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 19.4 is for diseases encountered during the agriculture year.

1. If the household has she goats, you would normally expect them to have kids in column 8
2. If kids are reported in column 2, 3, or 4 (19.2.6, 19.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of goats the importance of this must be reflected in Q 2.2.3

Section 19.5 If goats are reported to have died in Column 5 then at least that number should be reported in 19.4 col 4

Working area for page 14

20.0 SHEEP POPULATION, INTAKE AND OFFTAKE																			
20.1 Did the household own, raise or manage any SHEEP during the 2002/03 agriculture year? (Yes =1 No =2) <input type="checkbox"/>																			
(If no go to section 21.0)																			
20.2 Sheep Population as of 1st October 2003					20.3 Sheep Intake during 2002/2003														
S/N	Sheep type	Number of Indigenous	Number of Improved		Total	S/N	Number Purchased	Number given /obtained	Number Born	Total Intake of Sheep	Average Value per head								
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)								
20.2.1	Ram	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	20.3.1	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>								
20.2.2	Castrated Sheep	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	20.3.2	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>								
20.2.3	She Sheep	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	20.3.3	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>								
20.2.4	Male lamb	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	20.3.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>								
20.2.5	She lamb	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	20.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>								
Grand Total					<input type="text"/>	<input type="text"/>													
20.4 Sheep Offtake during 2002/2003							20.5 Sheep diseases												
S/N	Sheep type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Sheep Offtake	Average value per head	S/N	Disease/parasite	Number Infected	Number Treated	No. Rec- overed	Number Died	Last vacci- nated	Main Sou- rce				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)				
20.4.1	Ram	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
20.4.2	Castrated Sheep	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.1	Foot Rot	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
20.4.3	She Sheep	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.2	CC PP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
20.4.4	Male lamb	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.3	Helminthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
20.4.5	She lamb	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	20.5.4	Trypa nsomiasis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>				
Total Offtake						<input type="text"/>						20.5.5	FMD	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
										<p>Last Vaccinated (Col 6)</p> <p>20031 20004 20022 before 20005 20013 Not Vaccinated...6</p> <p>Main Source of vaccine (Col 7)</p> <p>Private Vet Clinic ..1 Other8 District Vet Clinic ..2 Not applicable9 NGO/Project.....3</p>									

Definitions and working page for page 15**Sheep definitions for page 15**

Sheep Intake during 2002/03: Sheep purchased, given or born which increases the number of Sheep in the herd.

Sheep Offtake during 2002/03:
Sheep removed from the herd, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 20.0)**Sheep type (Q 20.2 & 20.4, Col 1)**

Ram: Mature **Uncastrated** male goat used for breeding

Castrated sheep: Male sheep that has been castrated.

Ewe: Mature female sheep over 9 months of age

Lamb: Young sheep under 9 months of age.

Average Value per Head (Q 20.3, (Col 7 & 9) & 20.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Sheep vaccination (20.5 col 1)

FMD: Foot and Mouth Disease

CCPP: Contagious Caprine Pleura Pneumonia

Section 20.0 Sheep Population, Intake & Offtake.

NOTE: Section 20.1 is for the current population (as of 1st October 2003);
Section 20.2 and 20.3 is for movement in and out of the herd during the 2002/03 agriculture year.
Section 20.4 is for diseases encountered during the agriculture year.

1. If the household has ewes, you would normally expect them to have kids in column 8
2. If lambs are reported in column 2, 3, or 4 (20.2.6, 20.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of Sheep the importance of this must be reflected in Q 2.2.3

Section 20.5 If Sheep are reported to have died in Column 5 then at least that number should be reported in 20.4 col 4

Working area for page 15

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21.0 PIG POPULATION AND PRODUCTION															
21.1 Did the household own, raise or manage any PIGS during the 2002/03 agriculture year (Yes =1 No =2) <input type="checkbox"/>															
(If no go to section 22.0)															
21.2 PIG Population as of 1 st October 2003								21.3 Pig increase during 2002/2003							
S/N	Pig type	Number						S/N	Number Purchased	Number given /obtained	Number Born	Total Pig Increase	Average Value per head		
	(1)	(2)							(3)	(4)	(5)	(9)	(10)		
21.2.1	Boar	<input type="text"/>						21.3.1	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>		
21.2.2	Castrated male	<input type="text"/>						21.3.2	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>		
21.2.3	Sow/Gilt	<input type="text"/>						21.3.3	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="text"/>	<input type="text"/>		
21.2.4	Male piglet	<input type="text"/>						21.3.4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
21.2.5	She piglet	<input type="text"/>						21.3.5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
Grand Total		<input type="text"/>													
21.4 Pig decrease during 2002/2003								21.5 Pig diseases/pests/conditions							
S/N	Pig type	Number Sold/traded	Number consumed by hh	Number given away/stolen	Number died	Total Pig Offtake	Average value per head	S/N	Disease/ parasite	Number Infected	Number Treated	No. Rec- overed	Number Died	Last vacci nated	Main Sou -rce
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		(1)	(2)	(3)	(4)	(5)	(6)	(7)
21.4.1	Boar	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>								
21.4.2	Castrated male	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.1	Anthrax	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.4.3	Sow/Gilt	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.2	ASF	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.4.4	Male piglet	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.3	Anemia	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
21.4.5	She piglet	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	21.5.4	Helmenthiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Total Offtake						<input type="text"/>									
22.0 LIVESTOCK PEST & PARASITE CONTROL								22.3 Do you normally encounter a tick problem (Yes=1, No=2) <input type="checkbox"/>							
								(If the response is 'NO' go to section 22.5)							
22.1 Did you deworm your animals during 2002/03 (Yes=1, No=2) <input type="checkbox"/>								22.4 Which methods of tick control did you use <input type="checkbox"/>							
(If the response is 'NO' go to section 22.3)								Control method (Q 22.4) None..1 Spraying ..2 Dipping..3 Smearing ..4 Other .8							
22.2 Which animals did you deworm ? (Tick appropriate boxes)								22.5 Do you normally encounter a tsetse fly problem (Y=1,N=2) <input type="checkbox"/>							
Cattle <input type="checkbox"/> Goats <input type="checkbox"/> Sheep <input type="checkbox"/> Pigs <input type="checkbox"/>								(If the response is 'NO' go to section 23.0)							
								22.6 Which methods of control did you use <input type="checkbox"/>							
								Control method (Q22.6) None .1 Spray .2 Dipping .3 Trapping .4 Other .8							
								<div style="border: 1px solid black; padding: 5px;"> Last Vaccinated (Col 6) 2003 ..1 20004 2002 ..2 before 20005 2001 ..3 Not Vaccinated.6 </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> Main Source (Col 7) Private Vet Clinic ..1 District Vet Clinic ..2 NGO/Project.....3 Other8 Not applicable9 </div>							

Definitions and working page for page 16**Pigs definitions for page 16**

Pig Intake during 2002/03: Pigs purchased, given or born which increases the number of Pigs in the production unit.

Pig Offtake during 2002/03:

Pigs removed from the production unit, either by selling, hh consumption, given away or stolen.

Question Specific Definitions (Section 21.0)**Pigs type (Q 21.2 & 21.4, Col 1)**

Boar: Mature **Uncastrated** male pig used for breeding

Castrated Pig: Male pig that has been castrated.

Sow: Mature female pig that has given birth to at least one litter of pigs.

Gilt: Female pig of 9 months up to the first farrowing.

Piglet: Young pig under 3 months of age.

Average Value per Head (Q 21.3, (Col 7 & 9) & 21.4 (Col 3, 5 & 7))

In these columns give the average value per head during 2002/03. For given, traded, consumed by the hh & given away/stolen estimate the value.

Pig vaccination (21.5 col 1)

ASF: African Swine Fever

Section 21.0 Pig Population, Intake & Offtake.

NOTE: Section 21.1 is for the current population (as of 1st October 2003); Section 21.2 and 21.3 is for movement in and out of the herd during the 2002/03 agriculture year. Section 21.4 is for diseases encountered during the agriculture year.

1. If the household has sows, you would normally expect them to have piglets in column 8
2. If piglets are reported in column 2, 3, or 4 (20.2.6, 20.2.5) then there must be at least that number repeated in column 8

Note: If the farmer reports sales of Pigs the importance of this must be reflected in Q 2.2.3

Section 20.5 If Pigs are reported to have died in Column 5 then at least that number should be reported in 20.4 col 4

Working area for page 16

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23.0 Other Livestock currently available and details of consumption and sales during the last 12 months						
	Animal type	Current Number	Sold during 2002/03		Consumed during 2002/03	
			Number	Average Value/head	Number	Average Value/head
		(1)	(2)	(3)	(4)	(5)
23.1	Indigenous Chicken	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.2	Layer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.3	Broiler	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.4	Ducks	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.5	Turkeys	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.6	Rabbits	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.7	Donkeys	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
23.8	Horses	<input type="text"/>	<input type="text"/>	<input type="text"/>	X X X	X X X X X
23.9	Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
24.0	CHICKEN DISEASES	Number infected	Number Treated	Number Died	Number Recovered	
24.1	Newcastle Disease	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.2	Gumboro	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.3	Coccidiosis	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.4	Chorysa	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
24.5	Fowl typhoid	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
25.0	LIVESTOCK PRODUCT	Sold during 2002/03		Consumed/utilised during 2002/03		
		Number		Average Value/unit	Number	Average Value/unit
25.1	Eggs	<input type="text"/>	<input type="text"/>	X <input type="text"/>	<input type="text"/>	<input type="text"/>
25.2	Hides	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
25.3	Skins	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
26.0	List in order of importance the outlets for the sale of Livestock					
S/N	Importance of outlet	Outlets for Cattle	Outlets for Goat	Outlets for Sheep	Outlets for Pigs	Outlets for Chickens
	(1)	(2)	(3)	(4)	(5)	(6)
26.1	1st	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
26.2	2nd	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
26.3	3rd	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
26.4	4th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
26.5	5th	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Outlet code (Col 2, 3, 4 & 5) Trader at farm1 Abattoir/factory.....5 Local Market2 Another farmer6 Secondary market/auction.....3 Other (Specify).....8 Neighbour4						
Source of structure (Q27.0 - Col 2) Owns1 NGO6 Cooperative2 Large scale farm7 Local farmers association3 Other8 Gov extension/veterinary4 Not applicable9 Development project5						
27.0 Access to functional Livestock structures /accessories						
S/N	Type of structure/accessory	Source of Structure	Distance to structure (Km)			
	(1)	(2)	(3)			
27.1	Cattle Dip	<input type="text"/>	<input type="text"/>			
27.2	Spray Race	<input type="text"/>	<input type="text"/>			
27.3	Hand powered sprayer	<input type="text"/>	<input type="text"/>			
27.4	Cattle crush	<input type="text"/>	<input type="text"/>			
27.5	Primary Market	<input type="text"/>	<input type="text"/>			
27.6	Secondary Market	<input type="text"/>	<input type="text"/>			
27.7	Abattoir	<input type="text"/>	<input type="text"/>			
27.8	Slaughter Slab	<input type="text"/>	<input type="text"/>			
27.9	Hide/skin shed	<input type="text"/>	<input type="text"/>			
27.10	Input supply	<input type="text"/>	<input type="text"/>			
27.11	Veterinary Clinic	<input type="text"/>	<input type="text"/>			
27.12	Village holding ground	<input type="text"/>	<input type="text"/>			
27.13	village watering point/dam	<input type="text"/>	<input type="text"/>			
27.14	Drencher	<input type="text"/>	<input type="text"/>			

Definition and working page for page 17**Question Specific Definitions Section 26.0)****Procedures for questions****Section 23.0 - Other Livestock:**

1. The current number includes both adult and young animals. For example The number of chickens in col 1 would include adults and chicks.

Question Specific Definitions Section 27.0)**Access to functional Livestock Structures/accessories (Section 27.0):**

NOTE: The structures must be functional. If they are not working/derelect then they should not be included. The distance to the next nearest functional structure should be taken.

Spray Race: A fixed spray structure on an animal race for spraying acaricide

Cattle crush: Corridor structure for restraining cattle.

Abattoir: Large building designed for slaughtering a large amount of animals. It normally has complex structures to assist in the slaughter and storage and a high level of hygiene is maintained.

Slaughter Slab: Concrete slab designed for slaughtering a small amount of animals

Hides: obtained from Cattle

Skins: Obtained from sheep and goats

Hide/Skin Shed: Shed for curing/tanning animal skins and hides

Village holding Pen: Enclosure for containing large amount of livestock which is owned communally.

Drencher: Device for orally administering medicine to livestock. If no product was sold in 2002 enter "0" in columns 6, 7 & 9.

Section 26.0 - Outlets for livestock:

Using the codes enter the outlets for the sale of different livestock in order of importance. If there are, for example, only 2 outlets mark the rest with a "X".

28.0 FISH FARMING

28.1 Was **Fish farming** carried out by this household during 2002/2003? (Yes =1, No=2) (If the response is 'NO' go to section 29.0)

28.2 Specify details of **fish farming practices**

S/N	Product ion unit number	Fish farming system	Size of unit/pond (m2)	Sourced of fingerling	frequency of stocking (No/year)	Number of stocked fish			Number of fish harvested	weight of fish harvested	weight of fish sold	Mainly sold to
						Tilapia	Carp	Other				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
28.1.1	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.1.2	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.1.3	3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Farming System (Col 2)
 Natural Pond...1 Natural Lake...3 Other...8
 Dug out pond...2 Water reservoir...4

Source of fingerlings (Col 4)
 Own pond...1 NGO/Project...3 Private trader...5
 Government Institution...2 Neighbour...4 Other...8

Mainly sold to (Col 12)
 Neighbour...1 Secondary Market...3 Large scale farm...5 Did not sell...7
 Local Market...2 Processing industry...4 Trader at Farm...6 Other...8

29.0 LIVESTOCK EXTENSION

29.1 Did you receive **livestock extension advice** during 02/03 (Yes=1, No=2) (If the response is 'NO' go to section 30.0)

S/N	Livestock Extension Message	Received Advice Yes=1, No=2	Adopted Yes=1 No=2	Source of Livestock Extension
	(1)	(2)	(3)	(4)
29.1.1	Feed and Proper feeding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.2	Housing (Goat, Dairy, Poultry, Pigs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.3	Proper Milking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.4	Milk Hygiene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.5	Disease control (dipping/spraying)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.6	Herd/Flock size and selection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.7	Pasture Establishment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.8	Group formation and strengthening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.9	Calf rearing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.10	Use of improved bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.1.11	Other livestock extension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source of livestock extension (Col 4)
 Government...1 NGO/Dev project...2 Cooperative...3 Large scale farmer...4 Other (Specify)...8

29.2 For the following **Livestock Extension Service Providers** give details

S/N	Extension Provider	If you pay for extension, what is the cost/yr	Contact farmer/group member (Y=1, N=2)	No. of visits by extension agency/year	No. of messages adopted in the last 3 yrs	Quality of Service
	(1)	(2)	(3)	(4)	(5)	(6)
29.2.1	Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.2.2	NGO/dev project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.2.3	Cooperative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.2.4	Large Scale farmer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.2.5	Other.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Quality of service (Col 6) Very good...1 good...2 Average...3 Poor...4 No Good...5

30.0 GOVERNMENT REGULATORY PROBLEMS

31.1 Did you face problems with government regulations during 2002/03 (Y=1, N=2) (If the response is no go to section 31.0)

	Problem code	Problem code
30.1.1	1st	Land ownership by government...1 Restriction of sale between regions...2
30.1.2	2nd	Import of food items...3
30.1.3	3rd	Other (specify)...8

Definitions and working page for page 18**General definitions for Section 28.0**

Fish farming: Refers to the rearing/production of fish. It is different to fishing in that the fish have to be reared and fed in fish farming. Fishing traps or captures naturally occurring fish in rivers, lakes and the sea and should not be included in this section.

Question Specific Definitions (Section 28.2)

Production unit number (Col 1): A production unit is a pond river/lake which is treated as a separate entity for the production of fish eg it may be by virtue of manageable size, maturity of fish, type of fish etc. Eg a farmer may have 3 fish ponds. (each one is a separate production unit).

Frequency of stocking (Col 5): What is the number of times the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

Sold: (Col 10 & 11)

If no fish were sold enter "0" in column 10 and 11)

Livestock Extension Services (Section 29.1)

Adopted (Col 3): This is the uptake of an intervention for 2 or more years

Livestock Extension Service providers (Section 29.2)

Contact Farmer: A farmer who is used by the extension services as a focal point to demonstrate new interventions to. The contact farmer then passes on the message to other farmers

Adopted (Col 5): This is the uptake of an intervention for 2 or more years

Working area for page 18

31.0 LABOUR USE				32.0 SUBSISTENCE vs NON-SUBSISTENCE																																																					
31.1 Who is mainly responsible for undertaking the following tasks:				32.1 Indicate if any members of the household was involved in the following activities and assess the percentage used for subsistence/consumption by the household:																																																					
S/N	Activity	Tick if carried out by hh	Main responsibility	S/N	Activity	Tick if hh was involved in activity	Estimate % used for subsistence	Estimate % used for non subsistence	Check Total																																																
	(1)	(2)	(3)		(1)	(2)	(3)	(4)	(5)																																																
31.1.1	Land Clearing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.1	Crop production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.2	Soil preparation (by hand)	<input type="checkbox"/>	<input type="checkbox"/>	32.1.2	Livestock production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.3	Soil preparation (oxen/tractor)	<input type="checkbox"/>	<input type="checkbox"/>	32.1.3	Vegetable production	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.4	Planting	<input type="checkbox"/>	<input type="checkbox"/>	32.1.4	Tree cutting for firewood	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.5	Weeding	<input type="checkbox"/>	<input type="checkbox"/>	32.1.5	Tree logging for poles	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.6	Crop Protection	<input type="checkbox"/>	<input type="checkbox"/>	32.1.6	Tree logging for timber	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.7	Harvesting	<input type="checkbox"/>	<input type="checkbox"/>	32.1.7	Tree logging for charcoal	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.8	Crop processing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.8	fishing	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.9	Crop marketing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.9	bee keeping	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.10	Cattle rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>	32.1.10	employment/off farm	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.11	Cattle herding	<input type="checkbox"/>	<input type="checkbox"/>	32.1.11	employment/off farm	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.12	Cattle marketing	<input type="checkbox"/>	<input type="checkbox"/>	32.1.12	Remittances	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																
31.1.13	Goat/sheep rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.14	Goat and sheep herding	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.15	Goat and sheep marketing	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.16	Milking	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.17	Pig rearing/husbandry	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.18	Poultry keeping	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.19	Collecting Water	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.20	Collecting Firewood	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.21	Pole cutting	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.22	Timber wood cutting	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.23	Building/maintaining house	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.24	Making Beer	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.25	Bee keeping	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.26	Fishing	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.27	Fish farming	<input type="checkbox"/>	<input type="checkbox"/>																																																						
31.1.28	Off-farm income generation	<input type="checkbox"/>	<input type="checkbox"/>																																																						
Responsibility (Col 3) HH head alone1 Girls6 Adult Males2 Boys & Girls7 Adult Females.....3 All household members.....8 Adults.....4 Hired labour9 boys 5				33.0 ACCESS TO INFRASTRUCTURE & OTHER SERVICES																																																					
				<table border="1"> <thead> <tr> <th>S/N</th> <th>Type of service</th> <th>Distance in Km</th> <th>S/N</th> <th>Type of service</th> <th>Distance in Km</th> </tr> <tr> <td></td> <td>(1)</td> <td>(2)</td> <td></td> <td>(1)</td> <td>(2)</td> </tr> </thead> <tbody> <tr><td>33.1</td><td>Primary School</td><td><input type="text"/></td><td>32.7</td><td>Feeder Road</td><td><input type="text"/></td></tr> <tr><td>33.2</td><td>Secondary School</td><td><input type="text"/></td><td>32.8</td><td>All weather road</td><td><input type="text"/></td></tr> <tr><td>33.3</td><td>Health Clinic</td><td><input type="text"/></td><td>32.9</td><td>Tarmac road</td><td><input type="text"/></td></tr> <tr><td>33.4</td><td>Hospital</td><td><input type="text"/></td><td>32.10</td><td>Primary market</td><td><input type="text"/></td></tr> <tr><td>33.5</td><td>District Capital</td><td><input type="text"/></td><td>32.11</td><td>Secondary market</td><td><input type="text"/></td></tr> <tr><td>33.6</td><td>Regional Capital</td><td><input type="text"/></td><td>32.12</td><td>Tertiary market</td><td><input type="text"/></td></tr> </tbody> </table>						S/N	Type of service	Distance in Km	S/N	Type of service	Distance in Km		(1)	(2)		(1)	(2)	33.1	Primary School	<input type="text"/>	32.7	Feeder Road	<input type="text"/>	33.2	Secondary School	<input type="text"/>	32.8	All weather road	<input type="text"/>	33.3	Health Clinic	<input type="text"/>	32.9	Tarmac road	<input type="text"/>	33.4	Hospital	<input type="text"/>	32.10	Primary market	<input type="text"/>	33.5	District Capital	<input type="text"/>	32.11	Secondary market	<input type="text"/>	33.6	Regional Capital	<input type="text"/>	32.12	Tertiary market	<input type="text"/>
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33.18	Livestock Dev Centre	<input type="text"/>	<input type="text"/>	<input type="text"/>																																																					
Satisfied with service (Col 4) Very good1 Average.....3 No good5 Good2 Poor4 Not applicable 9																																																									

Definition and working page for page 19**Question specific definitions (Section 31.1)****Activity (Col 1):**

Land Clearing: Refers to removing trees/bush/grass prior to ploughing

Soil Preparation: Refers to the seedbed preparation (ploughing, harrowing, etc).

Cattle Rearing: Tending to cattle at home, eg assisting with births, castration, etc. Different livestock keeping activity to herding.

Cattle Herding: Moving livestock from place to place for grazing and water. If herding is carried out the respondent must also give a response to rearing/husbandry

Question Specific Definitions (Section 32.0.0)**Activity (Col 1):**

Subsistence: For the family's survival, rather than for the generation of cash. This includes feeding the hh, provision of water and fuel for cooking. The source of these products are usually from the land resources available to the family. Remember that not all cash earnings are for non subsistence purposes/activities as cash can be used to purchase subsistence items eg food.

Non -subsistence: Cash used for items and activities which are not crucial for the survival of the family. This includes modern medication, non working clothes, refined beer, school fees, etc.

Procedures for (Section 31.1)**Section 31.1 ((Labour use)**

1. For each listed activity in column 1, place a tick in column 2 if any member of the household was involved in that activity during the 2002/03 agriculture year.
2. After completing column 2 return to the first activity in row 27.1.1 and complete column 3.
3. Make sure you stress MAINLY responsible.

NOTE: If an activity has been mentioned previously in the questionnaire eg that the hh keeps chickens, make sure a response is obtained in the appropriate place ie poultry keeping.

If off-farm income generation is mentioned, check for responses to off farm income in other parts of the questionnaire

Section 32.0 - Subsistence vs Non-subsistence

1. For each listed activity in column 1, place a tick in column 2 if any member of the household was involved in that activity during the 2002/03 agriculture year.
2. After completing column 2 return to the first activity in row 32.1.1 and complete column 3 & 4. For each activity make an assessment of the percentage used for subsistence survival and the percent converted to cash for non subsistence goods and items.
3. Make sure you stress MAINLY responsible.

NOTE: Cross check the responses with previous sections in the questionnaire. eg if a response is given to remittances check for an entry in question 2.2.5

34.0 HOUSEHOLD FACILITIES																							
34.1	House Construction	34.2 Household assets																					
<p>For the main dwelling, what are the main building materials used in the construction of the following</p> <p>34.1.1: Roof <input type="checkbox"/> 34.1.2 Number of rooms <input type="checkbox"/> <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Roof Material</p> <p>Iron Sheets.....1</p> <p>Tiles2</p> <p>Concrete3</p> <p>Asbestos4</p> <p>Grass/leaves.....5</p> <p>Grass & mud.....6</p> <p>Other (Specify) 8</p> </div>		<p>Does your household own the following?</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">Asset</th> <th style="width: 20%;">Y=1 N=2</th> </tr> </thead> <tbody> <tr><td>34.2. Radio/cassette, music system)</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Telephone (landline)</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Telephone (mobile)</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Iron</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Wheelbarrow</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Bicycle</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Vehicle</td><td><input type="checkbox"/></td></tr> <tr><td>34.2. Television</td><td><input type="checkbox"/></td></tr> </tbody> </table>		Asset	Y=1 N=2	34.2. Radio/cassette, music system)	<input type="checkbox"/>	34.2. Telephone (landline)	<input type="checkbox"/>	34.2. Telephone (mobile)	<input type="checkbox"/>	34.2. Iron	<input type="checkbox"/>	34.2. Wheelbarrow	<input type="checkbox"/>	34.2. Bicycle	<input type="checkbox"/>	34.2. Vehicle	<input type="checkbox"/>	34.2. Television	<input type="checkbox"/>		
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34.5	Access to toilet facilities	34.6 Food consumption patterns																					
<p>34.5.1 What type of toilet does your hh use <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Type of toilet</p> <p>No toilet/bush.....1 Improved pit latrine - hh owned.....4</p> <p>Flush toilet2 Other type (specify)5</p> <p>Pit latrine - traditional ..3</p> </div>		<table border="1" style="width:100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 80%;">34.6. Number of meals the hh normally has per day</td> <td style="width: 20%;"><input type="checkbox"/></td> </tr> <tr> <td>34.6. Number of days hh consumed meat last w</td> <td><input type="checkbox"/></td> </tr> <tr> <td>34.6. How often did the hh have problems in satisfying the food needs of the hh last year?</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Problems satisfying hh food needs (row 34.6.3)</p> <p>Never1</p> <p>Seldom2</p> <p>Sometimes3</p> <p>Often4</p> <p>Always5</p> </div>		34.6. Number of meals the hh normally has per day	<input type="checkbox"/>	34.6. Number of days hh consumed meat last w	<input type="checkbox"/>	34.6. How often did the hh have problems in satisfying the food needs of the hh last year?	<input type="checkbox"/>														
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34.7	Source of Household income																						
<p>34.7.1 What is the households main source of cash income? <input type="checkbox"/> <input type="checkbox"/></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>Source of Income codes</p> <p>Sale of food crops01 Wages or salaries in cash07</p> <p>Sale of Livestock.....02 Other casual cash earnings ..08</p> <p>Sale of livestock products ...03 Cash remittances09</p> <p>Sale of cash crops.....04 Fishing10</p> <p>Sale of forest products05 Other98</p> <p>Business income.....06 Not applicable99</p> </div>																							

Definition and working page for page 20**Household facilities (Section 34):****Number of rooms used for sleeping in the household (Q 34.1)**

Include sitting room, dining room, kitchen, etc if used for sleeping. It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building/house that is not divided into rooms is considered to have one room.

Household assets (Q 34.2): these assets must be functioning. Do not include if broken.

Access to drinking water (Q 34.4): If there is more than one source, use the one, which the hh uses most frequently.

Main source of hh cash income:

Activity that provides the hh with the most cash during 2002/03 agriculture year.

Average/maximum yields						Use this table to compare the yields calculated in sections 7.1, 7.2, and 7.3. They are STRICTLY to be used as guidelines only and the sole purpose is to assist in getting the correct area and harvest for each crop					
Crop Name	kg/ha		kg/acre		Crop Name	kg/ha		kg/acre			
	Average	Max	Average	Max		Average	Max	Average	Max		
11 Maize	1200	6250	486	2530	86 Cabbage			0	0		
12 Paddy	700	4000	283	1619	87 Tomatoes			0	0		
13 Sorghum	750	3500	304	1417	88 Spinach			0	0		
14 Bulrush Millet	350	3000	142	1215	89 Carrot			0	0		
15 Finger Millet	300	2500	121	1012	90 Chillies			0	0		
16 Wheat	1200	4500	486	1822	91 Amaranths			0	0		
17 Barley	1400	2300	567	931	92 Pumpkins			0	0		
21 Cassava	3000	7000	1215	2834	93 Cucumber			0	0		
22 Sweet Potato	600	8000	243	3239	94 Egg Plant			0	0		
23 Irish potatoes	750	8500	304	3441	95 Water Mellon			0	0		
24 Yams	4000	10000	1619	4049	96 Cauliflower			0	0		
25 Cocoyams	2500	5000	1012	2024	52 Sisal	800	25000	324	10121		
26 Onions			0	0	54 Coffee	500	100	202	40		
27 Ginger			0	0	55 Tea	2500	10000	1012	4049		
31 Beans	400	1300	162	526	56 Cacao	200	1000	81	405		
32 Cowpeas	300	1750	121	709	57 Rubber	400	1400	162	567		
33 Green gram			0	0	58 Wattle			0	0		
34 Pigeon pea	600	2000	243	810	59 Kapok			0	0		
35 Chick peas	500	1500	202	607	60 Sugar Cane	60000	150000	24291	60729		
36 Bambara nut	600	4000	243	1619	61 Cardamom			0	0		
41 Sunflower	600	1700	243	688	71 Banana	10000	50000	4049	20243		
42 Simsim	300	1000	121	405	72 Avocado			0	0		
43 Groundnut	600	4000	243	1619	73 Mangoes	10000	25000	4049	10121		
47 Soyabeans	1300	2500	526	1012	74 Papaw	50000	70000	20243	28340		
48 Caster seed	300	750	121	304	76 Orange	20000	40000	8097	16194		
75 Pineapple	25000	60000	10121	24291	77 Grape fruit	30000	50000	12146	20243		
50 Cotton	300	1500	121	607	78 Grapes	5000	30000	2024	12146		
51 Tobacco	500	2000	202	810	79 Mandarin/tange	20000	40000	8097	16194		
53 Pyrethrum			0	0	80 Guava	7000	35000	2834	14170		
62 Jute	800	3500	324	1417	81 Plums			0	0		
44 Palm Oil	1200	5000	486	2024	82 Apples			0	0		
45 Coconut	2000	8000	810	3239	83 Pears			0	0		
46 Cashewnut	9	60/tree	4	24	84 Pitches			0	0		

Back Page Reference material

This page contains reference information that may be required to complete some of the questions in the questionnaire.

Weights and measures

1 hectare = 10,000 sq metres (100 x 100 metres)
 1 kilometre = 1000 metres
 1 acre = 4840 square yards (110 x 44 yards)

Conversions

1 hectare = 2.47 acres
 1 mile = 1.61 Kilometres

Kg equivalents

The following standards may be used as a guide to obtain kg if the reported unit is different. Only use these conversions if the respondent is unable to provide weights in kgs.

	Crop Name	Number of Kgs			
		Standard		Non-standard	
		Bag	Tin	Name	kgs
11	Maize	100	18	Rumbesi	140
12	Paddy	75	15		
13	Sorghum	100	18		
14	Bulrush Millet	100	18		
15	Finger Millet	120	20		
16	Wheat	75	15		
17	Barley	75	15		
21	Cassava	60	12		
22	Sweet Potatoe	80	16		
23	Irish potatoes	80	16		
24	Yams	80	16		
25	Cocoyams	80	16		
26	Onions	80	16		
27	Ginger	75	15		
31	Beans	100	20		
32	Cowpeas	100	20		
33	Green ram	100	20		
34	Pigeon pea	100	20		
35	Chick peas	100	20		
36	Bambara nut	100	20		
41	Sunflower	60	12		
42	Simsim	100	20		
43	Groundnut	50	10		
47	Soyabeans	100	20		
48	Caster seed	100	20		
75	Pineapple	90	18		
50	Cotton	50	10		
51	Tobacco	70	14		
53	Pyrethrum	60	12		
62	Jute	50	10		
44	Palm Oil	100			
45	Coconut	75			
46	Cashewnut	80			
86	Cabbage	50			
87	Tomatoes	90			
88	Spinach	45			
89	Carrot	110			
90	Chillies	85			
91	Amaranths	50			
92	Pumpkins	60			
93	Cucumber	80			
94	Egg Plant	70			
95	Water Mellon	80			
96	Cauliflower	50			
52	Sisal	130			
54	Coffee	55			
55	Tea	60			
56	Cacao	60			
57	Rubber				
58	Wattle	90			
59	Kapok				
60	Sugar Cane	120			
61	Cardamom	100			
71	Banana	120			
72	Avocado	140			
73	Mangoes	130			
74	Papaw	100			
76	Orange	130			
77	Grape fruit	120			
78	Grapes	80			
79	Mandarin/tange	110			
80	Guava	110			
81	Plums	110			
82	Apples	110			
83	Pears	110			
84	Pitches	110			

For official use only:

If a question has a query, an indication will be made by the supervisor/data entry controller on the front page of the questionnaire. This space is to note what and where the problem is, the action required to be taken and the responsible person to take follow up action.

Nature of the problem:

Action Required: National supervisor action

Field supervisor action

Overall Status: Does not affect overall integrity of the questionnaire.
 More data is required before it can be used

Discard and resample
 Discard as missing data